

UNIVERSITY OF HAWAII  
LIBRARY

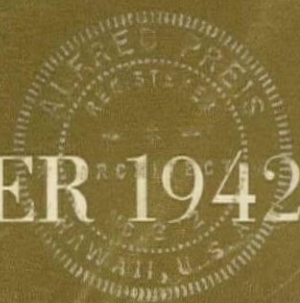
UNIVERSITY OF HAWAII  
LIBRARY

# THE NEW HOUSE 194

Edward D. Stone & J.S.  
Talbot Sharp & Cope B.  
Wainwright - Emrich M.  
Wainwright & Douglas Ma  
chison & Douglas Ma  
Zach Sauran  
Nash L. Flint  
Wright - Mary and Russell  
Samuel J. Marx & Walter F. Boyer  
& C.W. Schonne - William Wic  
Charles H. Warner, Jr.  
Charles H. Warner, Jr. & Joseph L.  
on Wurster & Fred Langford  
Gardner Bailey & Joseph L.  
erick, Jr. - Gilbert Rolde  
Harwell Hamilton Harris  
Victorine and Samuel Huncey  
John Porter Clark & Albert Frey  
Richard M. Bennett - Skidmore, Owings  
& Merrill - George Fred Keck - Paul Lutz  
Lo - Morris Ketchum, Jr. & Jedd Resner - Mar  
in Corbett - Alfred Shaw  
& Ray Sturmer - Al  
red Kostner - Michael  
Goodman - Ralph Rap  
son & David Runnells  
Burham Hoy - Vic  
for Calkin - C. Holmes  
Perkins & Robert A. Lit  
le - George Dobb &  
Peter Blach - Paul Thiry

# THE ARCHITECTURAL FORUM

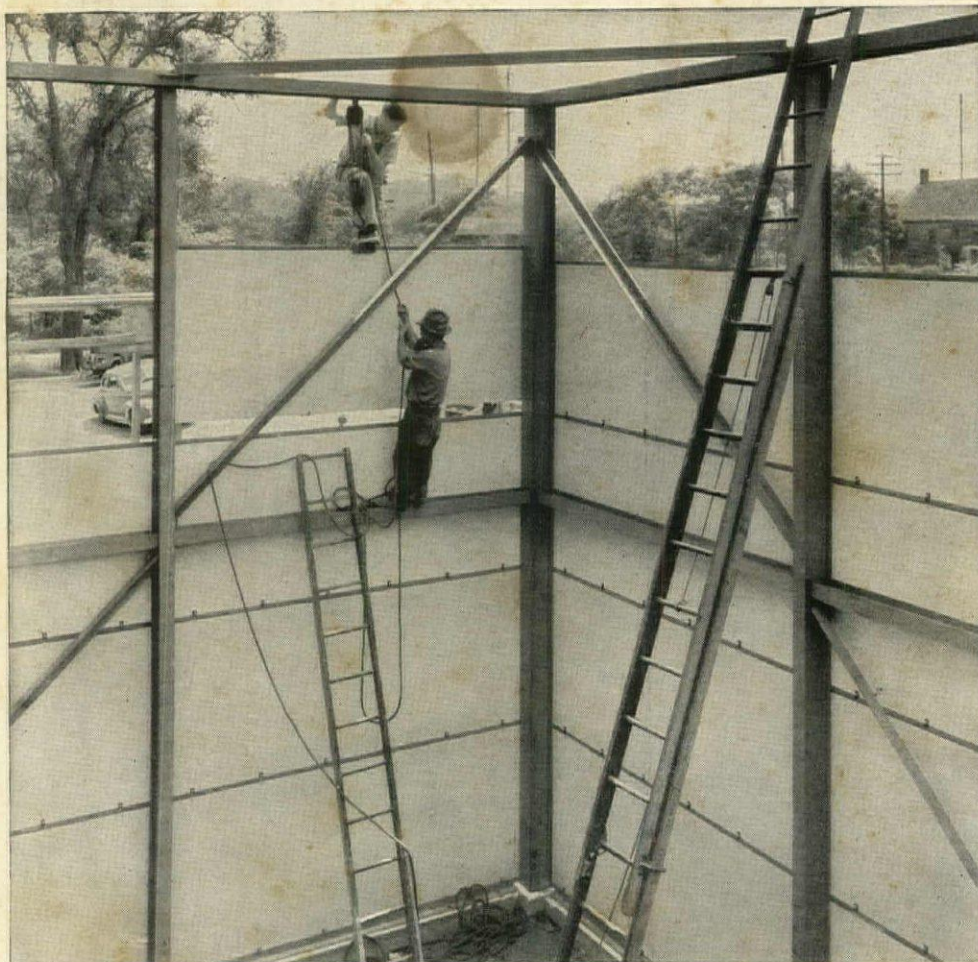
SEPTEMBER 1942





# CEMESTO OFFERS 3 BIG ADVANTAGES

## for Fast Factory Construction With Steel Framing or Wood Framing!



**Combines Strength, Insulating Efficiency, Good Looks**  
**NO OTHER FINISH NECESSARY—INSIDE OR OUTSIDE!**

ARCHITECTS are finding Celotex Cemesto a practical and versatile material for enclosing many types of industrial structures which must be rushed to completion. It has repeatedly demonstrated its ability to replace combinations of materials in hangars and ordnance plants, ammunition depots and storage buildings, assembly shops, machine shops, etc.

This product may be used with steel or wood structural framing, or reinforced concrete framing. It combines in one material—erected in a single operation—structural strength, proved insulation, resistance to

weather, and resistance to fire. Its gray asbestos-cement surfaces do away with necessity for painting or other surface treatment. Its core is Celotex insulation board with a thermal conductivity of 0.33 per 1" thickness.

Standard thicknesses are 1 1/8", 1 9/16", and 2"; width 4'; lengths, 4', 6', 8', 10', and 12'. Weight, 3.8 pounds to 5.3 pounds per sq. ft.

Write for detailed application sheets and sample!

The word Celotex is a brand name identifying a group of products marketed by The Celotex Corporation.



THE CELOTEX CORPORATION • CHICAGO



## SEPTEMBER 1942

**NOTE:** *All rights in this issue are reserved. All designs are copyrighted, and patent applications have been filed relating to certain thereof.*

**THE NEW HOUSE OF 194X** 65  
An introduction, outlining the scope and purposes of this issue.

**A MEMORANDUM TO 194X ARCHITECTS** 66  
Program for the house of 194x, submitted by THE FORUM's Editors to the invited architects and designers.

**INDEX** 70  
An alphabetical list of contributors, with the subjects covered by their projects.

**33 PROJECTED DESIGNS** 71  
Original studies by an invited group of architects and designers. These projects examine the house and its potentialities from technical, social and esthetic viewpoints, and present an exciting glimpse of the developments in which the designers and builders of postwar housing will share. Material, most of which assumes prefabrication, includes construction systems, planning innovations, special equipment and service units, and proposals for the improvement of many house parts such as doors, windows, kitchens, partitions, bathrooms and other elements.

**NEWS** 2  
War housing still held up by material shortages, an incomplete Lanham Bill, aggravated sore spots like Detroit . . . Fuel oil situation especially pressing with prospect of a cold winter ahead . . . Personnel changes, promotions, appointments in FHA, FWA, WPB . . . Rent control to control inflation creates friends, enemies, dissension . . . The War Guest program progressing with appointment of Director Harold Strong to lead the new Homes Utilization Division . . . Large hotels throughout the nation enlist to serve Army for housing of soldiers—of both sexes . . . Architects hard-hit by war, hopes to regain position by work as postwar planners . . . Much progressive postwar planning beginning in key cities . . . Cost of living . . . Black market in San Francisco.

**FORUM OF EVENTS** 6  
The Cooper Union . . . Announcements . . . Awards . . . Personals . . . Obituaries.

**BUILDING REPORTER** 14

**BOOKS** 16  
Lescage on Architecture . . . Painting Materials . . . Fluorescent Lighting.

**LETTERS** 24

*In Military Service:*

Robert W. Chasteney, Jr.  
Robert Hanford  
Joseph C. Hazen, Jr.  
George B. Hotchkiss, Jr.  
S. Chapin Lawson  
A. Banks Wanamaker

*Publisher, Howard Myers; Managing Editor, Ruth Goodhue; Associates, John Beinert, Doris Grumbach, George Nelson, Henry Wright; Assistants, Richard E. Saunders, Madelaine Thatcher. THE ARCHITECTURAL FORUM is published by Time, Inc., Maurice T. Moore, Chairman; Roy E. Larsen, President; Charles L. Stillman, Treasurer; David W. Brumbaugh, Secretary. Publication and Subscription Office, Orange, Conn. Subscriptions may also be sent to 330 East 22nd Street, Chicago, Illinois. Executive, Editorial and Advertising Offices, 19 West 44th Street, New York. General Manager, Robert W. Chasteney, Jr. Advertising Manager, George P. Shutt. Address all editorial correspondence to 19 West 44th Street, New York. Yearly subscription, payable in advance, U. S. and Possessions, Canada, Cuba, Mexico, South America, \$4.00. Elsewhere \$6.00. Single issues, including Reference Numbers, \$1.00. All copies Mailed Flat. Copyright under International Copyright Convention. All rights reserved under Pan American Copyright Convention. Copyright, 1942, by Time Inc. Printed in U. S. A.*

VOLUME 77—NUMBER THREE



# NEWS . . . . . THE MONTH IN BUILDING

Priority tangles, local wrangles mark war housing lag (this page)... Detroit adopts Blandford's curtailed program (this page)... Bauer-Grimm debate war housing (this page)... Lanham Bill awaits Congressional readjournment (page 4)... First half-year total construction up, private down sharply (page 4)... Materials, especially lumber (page 172)... fuel oil (page 172)... steel (page 176) still short, still problems... Personnel notes on FHA, NHA, FWA, WPB (page 176)... Rent control muddle of the month (page 184)... Hotels at war (page 188)... Architects war casualties (page 189)... Cost of living (page 191)... Black market troubles (page 191).

## GALLOPING FRUSTRATION

Three major retardants continued to hold war housing far behind industrial building: 1) local dissension continued in all the housing bad spots. Detroit alone had started on its slow recovery 2) total paralysis of the Lanham Bill until Congress readjourns in September and 3) continuation of material shortages.

## SORE SPOTS

In mid June, forced into action by the prodding of the Congressional Trumann Committee, NHA's Blandford asked Maury Maverick to head a committee to ferret out the truth on Willow Run. Last month burly Mr. Maverick found that Mr. Blandford's estimate of the need was accurate. Blandford acted. Result: FPFA got its allotment of critical materials for 2,500 units, private contractors found they could continue and finish their inadequate 16,000 defense homes (4,500 now being processed, 12,000 coming up), and about 10,000 workers in and about Detroit still were uncertain of housing.

FPFA dealt cleverly with objections to the publicly financed 2,500 units by doing

some probing around for water on the site, as answer to the objection that a pipeline from Detroit would be costly. Total program now in work thus includes these units, plus 3,000 dormitories, 1,000 temporary dormitories, and 2,000 additional family dwelling units.

Detroit's press was as usual, divided, even between issues of the same paper, but its indignation late in the month no doubt affected Washington's action. Editorially on April 13 *The Detroit Free Press* declared that "no such city (Bomber) is necessary, or is it practicable... the answer... is to be found in the dozen or so communities in the Willow Run Area..." (FORUM, May, p. 28). On August 7 it became suddenly aware that "the conditions under which war workers in Detroit have to live are appalling and they constitute a brake on war production." Then, suffering a sudden and complete amnesia, and goaded by *Life's* indictment in its August 14 issue, the same paper shouted angrily, "Quit knocking Detroit." Mayor Jeffries appealed to Federal authorities Henderson and Blandford for relief, and into the Voice-of-the-People columns crept a small but poignant voice: "We finally got a room, but we have cockroaches, and the bed is alive with bedbugs. We'll move as soon as we find another place."

In this housing wasteland, the whimpers of protest are perhaps turning into the bangs of action since the Maverick Committee reported.

In Portland, a 5-man committee was appointed to "cut through priority tape," start getting shelter for 107,200 families needed to man the Portland-Vancouver shipbuilding area. On the committee: Edgar B. Kaiser, son of I'll-do-it Henry.

In San Diego, troubles both local and national were aired in the Town Meeting of the Air debate on July 16 by Catherine Bauer, vice-president, California Housing

& Planning Association and Peter Grimm, prominent New York real-estate man.

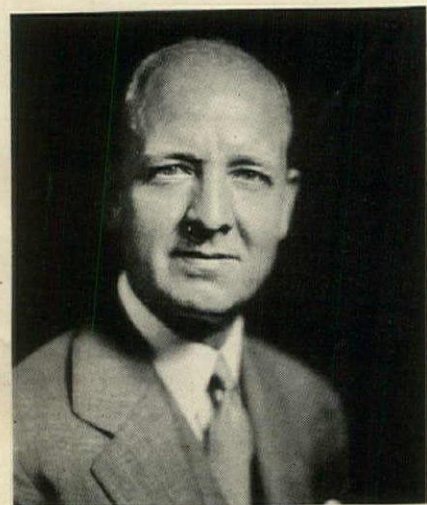
Subject: How to cope with war-time conditions in defense areas. Declared Miss Bauer: "It seems to me that all common sense lies now on the side of public enterprise... it's giving us vast laboratory experience with experimental building methods and prefabrication, with large-scale community planning, with rental management and upkeep, and with streamlined production processes." Retorted Mr. Grimm: "the Government would do well to conserve these talents (of planners, engineers, architects and builders) by encouraging opportunities for them to work. They can best be put to work by fixing upon private industry full responsibility for building in still greater volume than it is doing now—certainly for building all the permanent housing that war workers require."

**Postscript:** A rose-by-any-other-name dept. The War Manpower Commissioner has found the definition of "war worker" too narrow, will try to have it extended to  
(Continued on page 4)



CATHERINE BAUER: she plumped public.

Otto Hagel



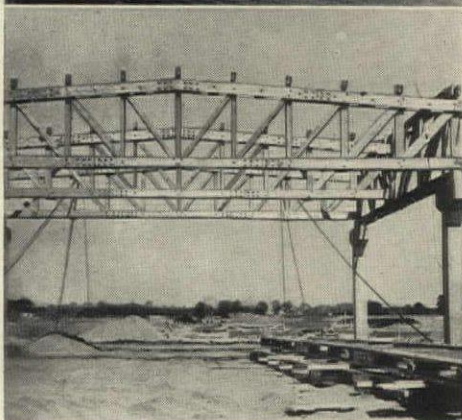
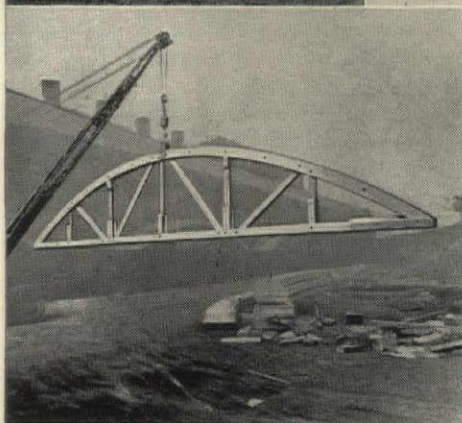
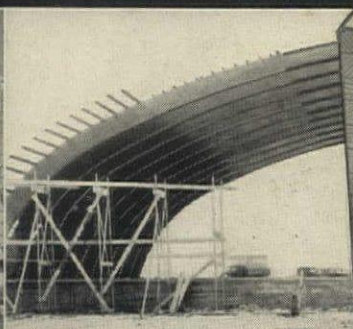
PETER GRIMM: he plugged private.



Now Available for Priority Construction

# RILCO

LAMINATED WOOD ARCHES



arches—arch rafters and structural framing members continuous from foundation to roof peak.

## ***Designed, Engineered and Factory Fabricated for Your Job!***

If you're planning a building where vast clear, post-free spans are required, such as airplane hangars, factories, munition plants, storage and service buildings, auditoriums, churches, recreation centers, drill halls, you can get the job done better, faster and economically with Rilco laminated structural framing members.

Rilco designs, engineers and manufactures glued laminated ply-beams for flat roof structures of one and two stories—beam arches for roof spans up to 200 feet and more—bowstring trusses, standard timber trusses, boomerang, utility

Scientifically kiln-dried—properly seasoned lumber, selected for strength, density and slope of grain, are combined with modern structural glues to form strong and sturdy structural members of any desired size, type or shape.

Rilco glued laminated products are designed and engineered for the specific job—manufactured under rigid factory supervision in five modern plants, strategically located for prompt service—and delivered to the job site ready for erection. Regardless of the size of the job or its location, *North, South, East or West*, Rilco stands ready to help you get the size and type of arch, beam or truss you need. Complete engineering data and design service is available to architects and engineers. Write today for information on Rilco Products. Copyright 1942

# RILCO

DESIGNERS AND  
FABRICATORS OF  
ENGINEERED WOOD  
PRODUCTS FOR A  
WIDE VARIETY OF USES

## **RILCO LAMINATED PRODUCTS, INC.**

*A Weyerhaeuser Institution*

1575 FIRST NATIONAL BANK BUILDING, SAINT PAUL, MINN.

Factories: ALBERT LEA, MINN., BRODHEAD, WIS., CHICAGO, ILL., HUNTINGTON, IND., WILKES BARRE, PA.

THE ARCHITECTURAL  
FORUM

Published monthly by Time, Inc., Orange, Conn. Yearly subscription: U. S. A. Insular Possessions, Canada and Cuba, \$4.00. Foreign Countries in the Postal Union, \$6.00. Single copies of this September issue, \$1.00. Entered as Second Class Matter at the Post Office at Orange, Conn., under the Act of March 3, 1879. Additional entry at New York, N. Y. Copyright, 1942, Time, Inc.

VOLUME  
Number



# THE MONTH IN BUILDING



Steinheimer

## ARMIES OF OCCUPATION:

Picture news of the month was made by buildings taken over by male and female Armies. Fast following the hotel takeovers in Miami Beach and Atlantic City by the Air Corps, Chicago yielded its Stevens (3,000-room world's largest hotel), the Congress and Auditorium to the Army (story, page 28). The WAVES swept into Northampton's Wiggins Inn and ancient Smith College Dorms (Northrop and Gillett House shown left). In Des Moines the first group of WAACs have completed their courses in manly barracks-classrooms (lower left) constructed specially for them.

include transportation workers, copper and coal miners, etc. Such changes would permit workers in these categories to qualify for houses built under the war housing program.

## LAGGARD LANHAM BILL

Rumor, reported in FORUM, Aug., p. 34, that skids would be put under the amendment to the Lanham Bill until after Congressional recess turned into sad truth. Until after Labor Day, the bill will sit tight, dry and useless, meanwhile allowing Congress' never very hearty enthusiasm to subside further. Other reason: generally growing conviction among the members that public housing is wasteful in face of growing shortages, that it wastes necessary workers. Finally, Capitol Hill's Public Building and Grounds Committee, and

the House generally, has become conscious of the fact that many of the public housers it didn't care much for are back with the new agency—FPHA.

**Jury Report:** No longer a backroom secret is the fact that the Bill, reported out of the PB & G Committee just prior to recess, barely came out alive. A motion to bisect it (from \$600,000,000 to \$300,000,000) was defeated—by one vote.

**Last word** at press date was that Senator Thomas (Dem., Utah) would present the Senate with a companion bill. Anxious not to wait for the turtle-advance of the House, the Senator plans an early hearing on his ersatz bill—with even a possible pre-adjournment hearing in committee. Form: identical with the one before the House.

**What this means to private building:** Costly, almost fatal delays of this sort mean one thing: that private building is expected to carry an ever-increasing portion of the war housing program. If Congressional trigonometry results in a sliced housing bill, the load for private building will be even heavier, with small hope that private builders will rush in where public powers fear to tread.

That private builders were willing but hopelessly discouraged by shortages of critical materials and other restrictions was shown this month when FHA revealed that 4,000 war houses a week (total of 83,000 to date) had been completed during July, but that construction this July declined sharply (a decrease of \$4,000,000,000) from July of last year.

## FIGURES (Jan.-July '42)

Public & Private Constr.:	more than \$6,000,000,000
Private Constr.:	\$2,000,000,000
New dwelling units:	up 18% as compared to 1941 period
War Constr. (for June):	\$1,045,101,000 — the highest point to date, and 14% above May's performance.*

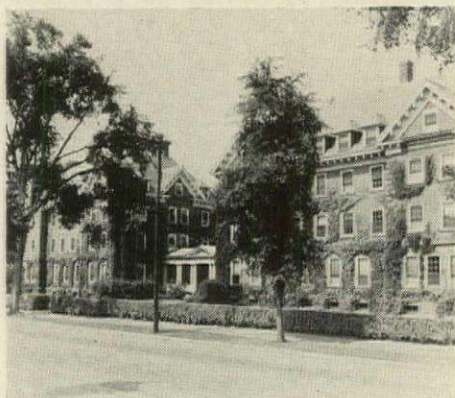
Private builders continued to insist (in the *Washington Letter* of the Home Builders Institute of America) that where materials are available they should immediately be allotted without any more excessive delays and conflicting regulations by WPB. Understanding well that business-as-usual was out of the question, they urged only that they be allowed to continue the portion of war housing allotted to them by Blandford's overall housing problem.

## MATERIAL DIFFICULTIES

Knots in the lumber situation have been developing recently due to shortages of labor, materials and equipment.

(Continued on page 172)

\*Although talk about curtailed volume of construction was heard in many quarters, these latest available figures show that programs are still expanding.



Fred G. Chase



Elizabeth



Here's the shower cabinet that will fit ALL  
your needs for low cost bathing facilities  
in War Housing . . .

# Bathe-Rite



The BATHE-RITE VICTORY SHOWER CABINET gives you—low first cost, low assembly cost, fast installation, attractive modern styling — sturdy, leakproof construction that meets the most rigid quality standards. Using the absolute minimum of critical materials, it easily complies with U. S. War Department Specifications and Federal Public Housing Authority Specifications.

#### **SAVES INSTALLATION TIME and COST . . .**

Typical BATHE-RITE Features save 25% and more in installation time and cost . . . Features like the Separate Mounting Frame which permits installation of Receptor when floors are laid. Prevents damage to mounting frame and aids in quicker cabinet erection.

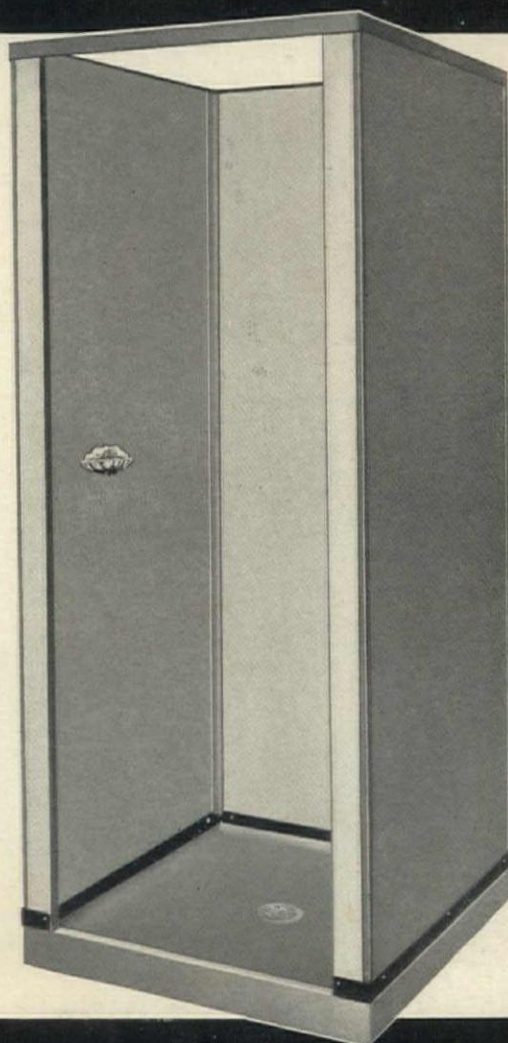
#### **TIMED DELIVERY**

Our mass production facilities, careful engineering and stand-

ardized models provide Timed Delivery of any quantity WHEN AND WHERE YOU NEED Shower Cabinets. Cabinets are conveniently packaged for easy handling and quick erection.

#### **BATHE-RITE VICTORY Shower Cabinet**

Made in THREE standard sizes — 30 x 30 x 75, 32 x 32 x 75, 32 x 32 x 80 — for installation in War Housings, Factories, Camps, Air Bases and other Government Projects.



RETURN THIS COUPON TODAY . . . FOR PRICES AND DETAILS

BATHE RITE DIVISION — Milwaukee Stamping Co.  
827-S South 72nd Street, Milwaukee, Wisconsin

Please RUSH complete specifications and prices on the new  
BATHE-RITE "VICTORY" Shower Cabinets. We are interested  
in . . . Cabinets.

Project . . .

Name . . .

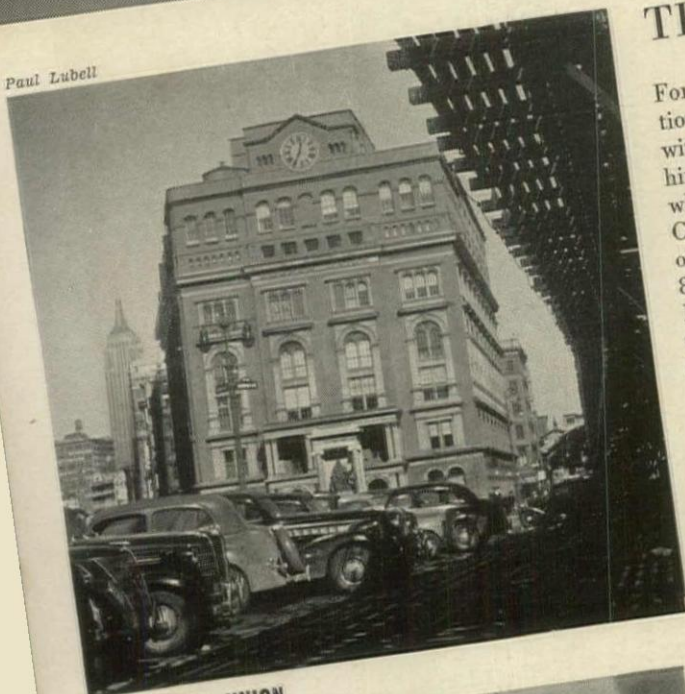
Address . . .

City . . . State . . .

Individual . . .



Paul Lubell



THE COOPER UNION



PHOTOGRAPHY STUDIO



INDUSTRIAL DESIGN WORKSHOP

## THE COOPER UNION

For many years the U. S. has prided itself, and rightly, on an educational system so set up that the student more generously equipped with ability and ambition than with money could somehow acquire for himself the training he needed. Outstanding among the institutions which have contributed to this national levelling-up process is The Cooper Union, now taking care of 2,000 students in the same musty old building that Peter Cooper built in downtown New York more than 80 years ago. Cooper was one of the most remarkable men of the middle 1800's: he profitably helped build the first steam locomotive; he invented a self-rocking musical cradle, built a glue factory that became the basis for the present industry and was one of the men who laid the Atlantic cable. His inventions and financial deals are now part of the local legend, but the institution into which he put most of his wealth is still paying rich dividends to the nation after almost a century. Nobody pays anything at Cooper Union, except an occasional laboratory fee. The school runs night and day, and will accept any high-school graduate over 16 who can pass the stiff entrance examination. All students take the same first-year foundation course, a reflection of the school's basic educational thesis, that each student should know the possible outlets for his talents before concentrating his efforts. One result of this approach has been the remarkable record made by Cooper Union graduates in war work—with naval architects, for instance—for which they had not been specifically trained. At the moment about 80 per cent of the night-school students are engaged in some phase of war work during the day. To its 1,200 students in the School of Engineering, Cooper Union offers recognized degrees in civil, mechanical, electrical and chemical engineering. The Art School, wherein resourcefulness and initiative are developed as the best means of survival in war or peace, grants certificates, in place of degrees. Both faculties maintain an interchange of ideas to emphasize the relationship between art and engineering. High point in the Art School's year is the annual exhibition, a very well presented show whose object is to demonstrate to students how far they have traveled along their respective paths, and how the work of each fits into the entire educational pattern. Photographs on the following page are taken from the latest exhibition.

(Continued on page 10)

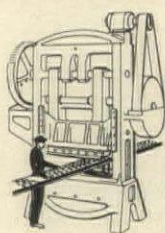


THE ARCHITECTURAL FOR





## SOMETHING NEW . . . Airports Built in a Few Hours!



This is a picture of an American bomber landing on an emergency runway made of STEEL! Ceko makes this product, which makes it possible for the Army to put down a temporary airport in a relatively short time! This is as much as we can tell you.

Every minute of every 24-hour day, Ceko engineers and workers are enthusiastically doing their part to help America win. In fact, a year and a half before Pearl Harbor, Ceko was working three shifts a day supplying its products for aircraft and arms plants, defense workers' homes and many military projects.

Tomorrow, when a victorious America again turns its talents toward peacetime building, Ceko will again fabricate better building products for you. Then the Ceko organization, with even broader experience, will provide quality even higher than that which has always been associated with the Ceko name.

# Ceko Steel Products Corporation

Manufacturing Division: 5701 W. 26th St., Chicago

General Offices: Omaha

### Ceko Peacetime Products:

Metal Frame Screens  
Commercial, Industrial, Case-  
ment & Basement Windows

Metal Weatherstrips  
Metal Lath & Accessories  
Steel Joists

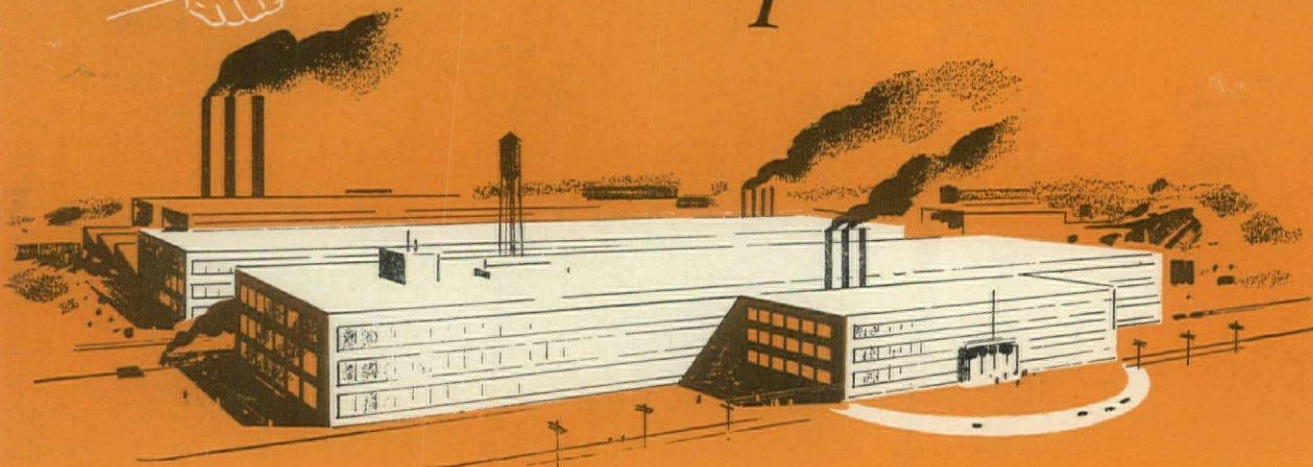
Steel Roof Deck  
Concrete Reinforcing Bars  
Meyer Steelforms

Adjustable Shores and  
Column Clamps  
Welded Fabric





# War plants have an invisible "protector"



**It's the refinements...the benefits of patient research...the quality...of the electrical wires and cables upon which uninterrupted operation depends.**

In electrical wires and cables, the "tremendous trifles", the never-heard-of-improvements, small as many of them are, are lengthening the period between "begin operation" and "breakdown". They are safeguarding *steady* production... they have been built to keep pace with 3-shift operation.

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical demands. Their improved constructions deliver greater capacities with less power loss, their insulations can withstand high heat, corrosion, abrasion. The research that built these wires and cables continues at a fast pace. Now in addition to delving into experiments for improvements in industrial products, Anaconda is devoting much of its

research to wiring for residential and commercial building.

***When peace returns, adequate commercial and residential wiring will need your attention.***

The electrical future will place greater demands than ever before on those in a position to make wiring selections. Anaconda will cooperate with architects with information and with products measuring up to their specifications.

42223



This familiar trade-mark symbolizes the best efforts of modern research and production.

**ELECTRICAL WIRES AND CABLES OF COPPER ARE THE LIFE LINES OF OUR NATION**

## **ANACONDA WIRE & CABLE COMPANY**

*Subsidiary of Anaconda Copper Mining Company*

GENERAL OFFICES: 25 Broadway, New York City • CHICAGO OFFICE: 20 North Wacker Drive • Sales Offices in Principal Cities



**STILL AVAILABLE —**  
*from finished warehouse stocks*  
**MODERN, BRILLIANT**  
**BRASCO STORE FRONTS**

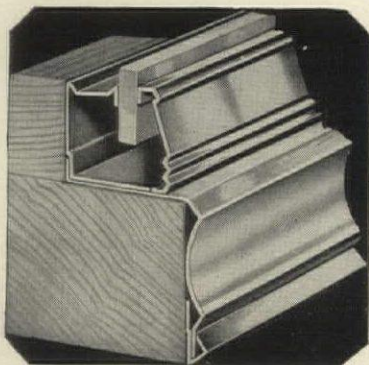


Modern retail merchandising standards are reflected in this brilliant Three Sisters establishment, using Brasco Store Front Construction. Architect: I. M. Cohen, Gary.

The application of Brasco precision mouldings in the War effort today, is the natural result of over thirty years of initiative in the development of specialized design and manufacture of advanced store front construction.

Your use of Brasco Construction from the completed stocks of our Distributors is unrestricted, providing the entire project cost is not over \$5000. Our nearest Distributor will gladly work with you on the requirements to suit any size budget.

You will still be obtaining the same sound, new-design Brasco members, complete in every detail, to provide modern, brilliant store fronts of lasting beauty and dependable glass safety — a product perfected on the proving-grounds of experience.



Modern Brasco Shadow Line Sash, shown with complete sill covering.

30 Years' Experience  
**Brasco**  
**MODERN**  
**STORE FRONTS**

BRASCO MANUFACTURING CO.  
 HARVEY (Suburb of Chicago) — ILLINOIS  
 National Distribution Assures Effective Installation

BRASCO MFG. CO., Harvey, Ill.

Send Information and Folder of New Details of Brasco Modern Store Front Construction.

Firm.....

Address.....

Individual.....

AP942



# FORUM OF EVENTS

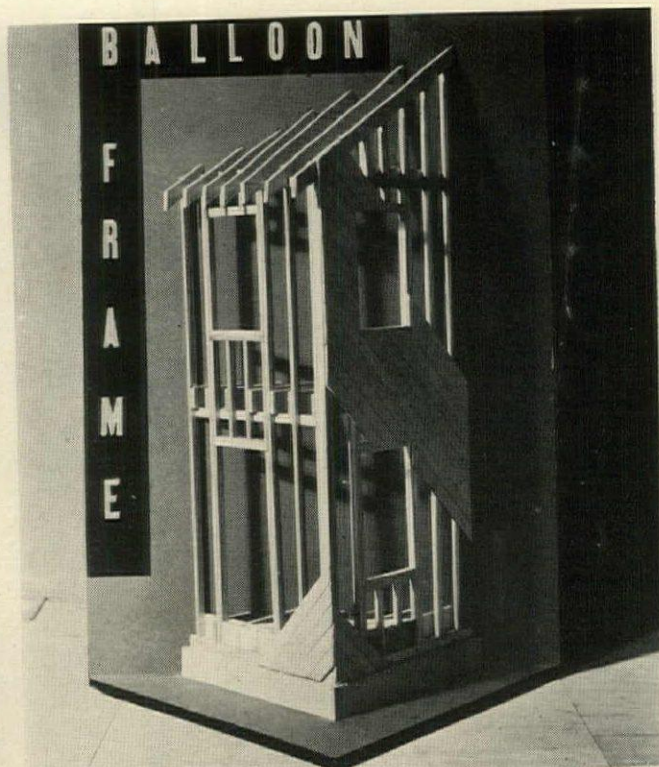
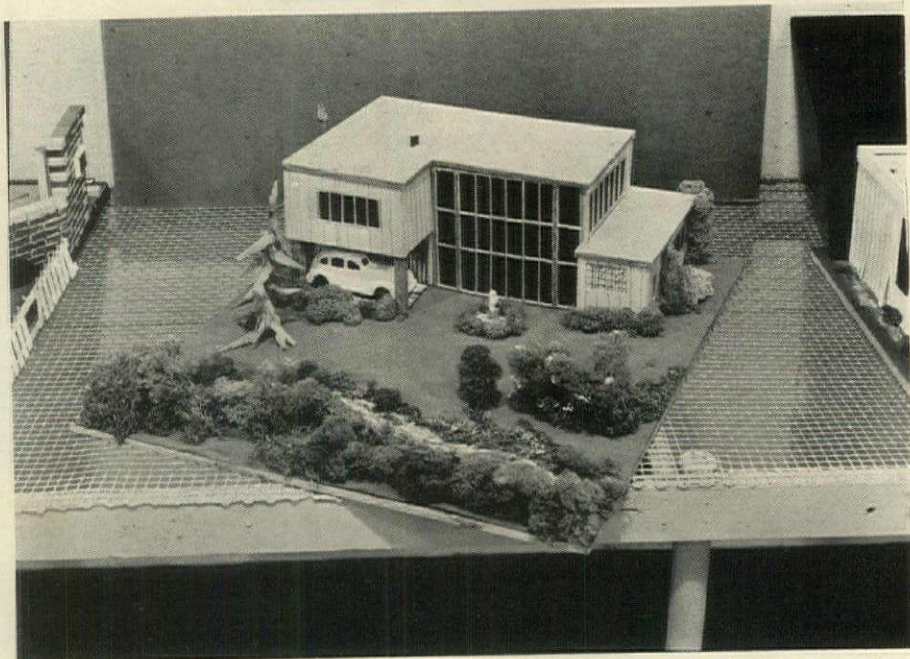
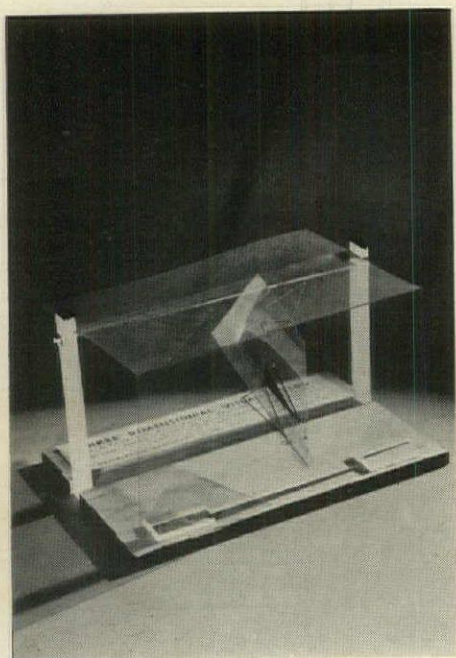
## THE COOPER UNION, continued—

Major emphasis is placed on work in three dimensions, as is indicated by the examples shown here. The architects, for instance, not only make models of their design projects, but must make models during their studies of types of construction. In classes of industrial and applied design, actual full-scale models are frequently built, while fabric and wallpaper designs are also executed. For all courses, whether rug design, furniture design or photography, completely equipped studios and workshops are maintained.

(Continued on page 192)



Above, a very well studied picnic set, which folds into an attractive suitcase. The photographs on the wall above show the table being set up. Below, one of the useful plastic models developed for the study of descriptive geometry.



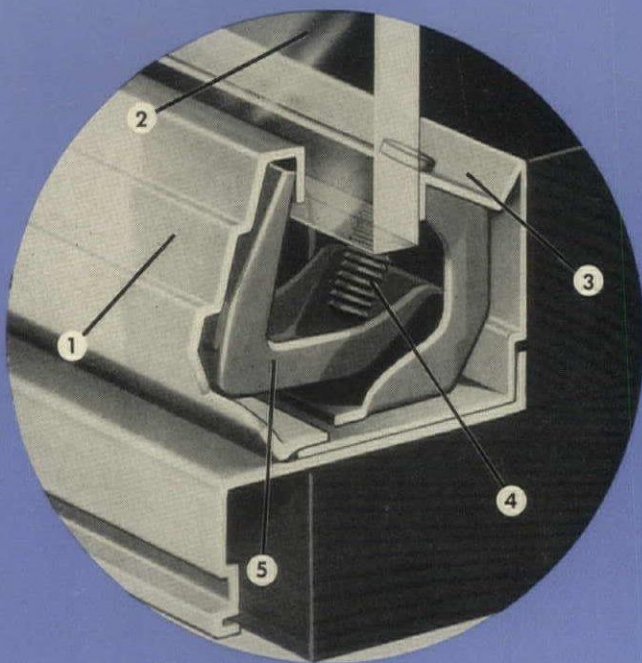
Above, a study of balloon framing, in three dimensions. Below, a section of the exhibition devoted to fabrics and abstract design. Bottom right, model of a project for a single-family dwelling.







## CUSHION GRIP ON SHOW WINDOW GLASS!



1. Fully Resilient Cold-Rolled Face Piece. Clean, Sharp Contours.

2. Zouri Sash Accommodate Glass Varying From 3/16" to 5/16".

3. Wide Trough To Drain Moisture From Glass. Cushion Grip.

4. Safety Key-Set Screw—Cannot Be Tampered With—Indirect Pressure.

5. Fully Resilient Mechanism Which Draws Face Piece Against Glass.

### —FOR YOUR PROTECTION!

Bitter experience has taught merchants the importance of proper protection against show window glass breakage. That's why it is always wise to use Zouri Construction on every store front job. The famous Zouri Safety Key-Set Sash meets the most rigid requirements for holding show window glass in a firm, secure, CUSHION GRIP. Every part that touches glass will yield under pressure or vibration. So play safe—and check with your local Zouri distributor who has a stock of Zouri construction—or write ZOURI STORE FRONTS, NILES, MICHIGAN.

**ZOURI**  
*Store Fronts*





Mengel Flush Doors are really fine hollow-grid doors, made in great volume and sold at very low prices. They are resin-bonded in hot-plate presses and sealed against both dirt and moisture. All wood parts are *genuine hardwood*. The frames are built with corner lock-joints consisting of a dovetail accurately fitted into a tapered cut-out, with a wedge forced into a slot in the tongue. . . . Available with faces of Gum, Mahogany, Walnut, Birch and Oak.



Mengelbord is *genuine hardwood* plywood,  $\frac{1}{4}$ " thick, in big 4' x 8' sheets, with the grain running the long way. It is resin-bonded in hot-plate presses. Being hardwood, it is free from grain raising and can be painted, stained and varnished, or finished in natural wood effects. It is available with faces of Gum, Mahogany, Walnut, Birch and Oak. It costs little more than softwood panels and is adaptable to any sort of interior use.



# TO YOU DESIGNERS OF TOMORROW

WITH all the world locked desperately in War, today may seem an odd time to speak of Tomorrow. But tomorrows always come. And while we now devote every energy to the productions of *War*, we know that today in the fertile imaginations of a thousand architects, engineers and industrial designers, the exciting new world of the Future is taking shape. . . .

Exciting? Yes!—a world not only of amazing automobiles and family airplanes, but also of greater conveniences and comfort in every adjunct of living. . . . Economical houses built in mass production to serve mankind as no house has ever served before. Furniture, utilities, clothes, foods that make man at last the master of his environment rather than its slave.

For this new world, we of The Mengel Company will offer many contributions. Our world-famed Mengelbord and other Plywoods, now being used in ships and war boats and airplanes as well as in famous

housing projects, will undoubtedly become the basis for dozens of new developments. Our Mengel Grid-Core Flush Doors, now being used in War Housing jobs, munitions factory offices and the like, may easily grow tomorrow into entire wall-sections or light, strong "panels" for many uses. Our vast factories now engaged almost exclusively in War work will unquestionably help to fashion the New World's plastic wood boats, furniture, airplanes and a thousand other things. . . .

Feeling thus the enormity of tomorrow's opportunity and challenge, we of The Mengel Company know that we see eye-to-eye with all you planners who are now, perhaps subconsciously, designing Tomorrow. We want you to call on us for the participation that is required to transmute dreams from paper to actuality. And when this War ends, you can count on us for every facility of production and distribution that Mengel can offer—the World's Largest Producer of Hardwood Products.

## THE MENGEL COMPANY

INCORPORATED

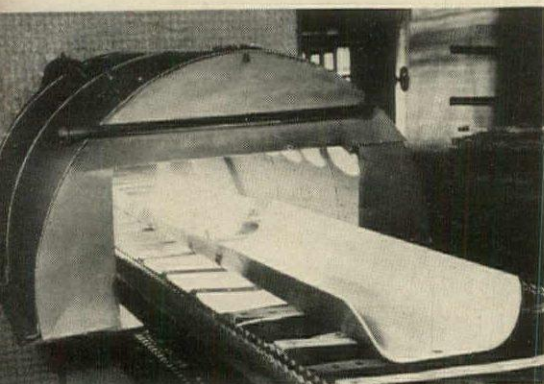
LOUISVILLE, KENTUCKY

Mengel Furniture is mass-produced to the specifications of several of America's greatest furniture merchandisers, which automatically makes us the largest producers of special-order furniture suites in the world.





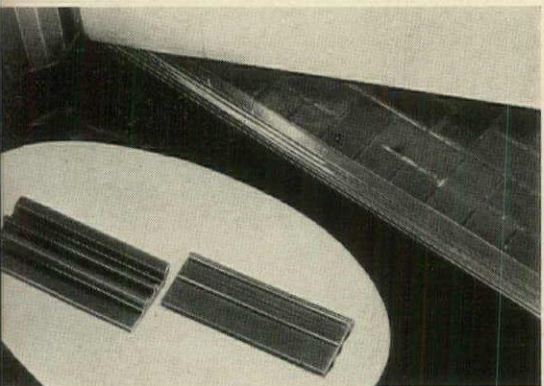
# Building Reporter



1. Composition reflectors emerging from oven



2. Sink unit conserves metals in war housing



3. Lumarith plastic thresholds save brass



4. Temporary protective coating is transparent

For additional information on any product described in this section write directly to the manufacturer.

**LIGHTING.** Fluorescent reflector utilizes non-essential materials (left 1).

*Name:* Non-Metallic Reflector.

*Purpose:* For Hygrade Sylvania Miralumes. Cuts by two-thirds the total amount of steel in a fixture.

*Features:* Made of strong, thick composition material, with the reflecting surface of the same high-temperature Miracoat synthetic enamel used on present Miralumes. General appearance remains the same. Because it weighs 50% less than present reflectors, installation and maintenance are that much easier. Has equally high light reflectivity. Rigid and sufficiently sturdy to carry its own weight. Interchangeable with steel, approved by the Underwriters' Laboratories, has same guarantee as steel reflector. Fluorescent fixtures utilizing this new reflector are in production.

*Manufacturer:* Sylvania Electric Products, Inc., Lighting Div., Ipswich, Mass. (formerly Hygrade Sylvania Corp.)

**CABINET SINK.** Vitreous china eliminates critical cast iron, prefabrication saves man-hours (left 2).

*Name:* V-Line Cabinet Sink.

*Purpose:* To provide a sink unit of non-critical materials: cast of vitreous china, with drainboard and backboard of treated maple.

*Features:* High-fired Vitreous China is used for the sink bowl which is heavy enough to resist all reasonable shock and is made further damageproof and watertight by means of an ingenious top suspension. Because the glaze is an integral part of the Vitreous China, the possibility of chipping or crazing is eliminated. The glazed finish is smooth, lustrous, impervious to kitchen stains and acids, and matches the white synthetic enamel of the hardwood undercabinet. The bolted, hard maple top is glued with water-resistant casein glue, treated with a wood dimension controlling agent and wax-finished. The undercabinets—with the exception of the ends, backs and bottoms (which are of Masonite Deluxe Quarterboard paneling)—are built entirely of selected hardwood, properly kiln-seasoned and dried to 6% moisture content. All doors are of a special low-cost recessed panel construction. Drawers are dovetailed. Sizes: 42 in. (containing no drawers), 54, 60 and 72 in. long. Also avail-

able, with matching hardware and door construction, is a complete line of base and wall cabinets.

*Manufacturer:* Mutschler Brothers Co., Nappanee, Ind.

**THRESHOLD.** Cellulose acetate plastic replaces brass, boasts advantages (left 3).

*Name:* Lumarith Threshold Stripping.

*Purpose:* For outside or inside door sills.

*Features:* Easy to apply with screws, strong, tough, will not chip, needs no polishing (simply wipe with a damp cloth to keep clean), will not corrode, is impervious to salt spray (for this reason can be used on shipboard).

*Manufacturer:* Revere Copper & Brass, Inc., 230 Park Ave., New York, N. Y.

**TEMPORARY COATING** for metal and ceramic surfaces is completely transparent to permit visual inspection (left 4).

*Name:* Protektol.

*Purpose:* To reduce rejects due to rust, surface scratches, shop wearing, grease and dirt during handling, fabrication, shipping, storage and installation.

*Features:* Particularly applicable to highly polished surfaces such as flat sheets, molds, irregular shapes, dies and bearings. In application, the liquid may be sprayed, brushed, dipped or roller-coated; then air dried to leave a flexible glass-clear coating of from .001 to .0015 in. One gallon, when sprayed to a thickness of one mil, will cover approximately 250 sq. ft. of surface. Drying time at 200° F. is 6 to 8 minutes. Water and sunproof, the coating is not affected by most greases and oils. There is no deterioration or cracking at temperatures between zero and 200° F. To remove the coating, it is necessary merely to lift one edge and peel, or blow off with an air gun. After being removed from the article it protects, Protektol may be returned and reduced to liquid form again, thereby lowering coating costs to a minimum. Also available in colors, making an ideal temporary identification medium.

*Manufacturer:* Ault & Wiborg Corp., 75 Varick St., New York, N. Y.

**BLACKOUT PROTECTION.** Film applied in sheet form, reduces flying glass hazard, is black on outside, white on inside.

*Name:* Blackout Decals.

*Purpose:* For complete opacity in one simple operation.

*Features:* Decals are furnished in sheets 25 x 34 in. Directions are to dip in water, place against glass, smooth out with squeegee, soak off backing paper. After

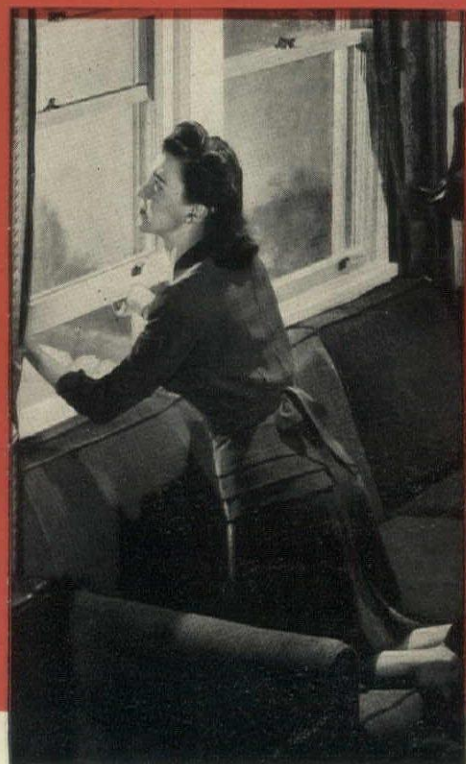
(Continued on page 200)



# IN THE POST-WAR HOUSE OF 194X SHE'LL WANT EASY WINDOW-OPENING



*Especially  
in Living rooms*



*Have you ever tried to open an ordinary sliding window, especially when it's over a davenport, or when it's wet and swollen, or stuck with paint?*

## WAREHOUSE STOCKS STILL AVAILABLE

Fenestra's manufacturing facilities are now almost entirely engaged in the production of vital war materials for the Government.

However, warehouse stocks of new Fenestra Package Windows and other types of Fenestra Residence Casements are still available now, under proper priorities. Consult nearest Fenestra Branch Office.

Think of the satisfaction your post-war clients will get with the new Fenestra Windows that always open easily—even over a living room davenport, even over a dining room buffet, even over a kitchen sink.

With Fenestra, you'll give them more beautiful windows, too—compare photographs, above; and more daylight, better ventilation, safe cleaning, permanent weather-tightness, better screens, low-cost storm sash, higher quality and lower upkeep—all at low prices.

Especially designed for use in today's low-cost houses, the new Fenestra Pack-

age Window is a factory-built unit that includes a high-grade steel casement, Bonderized and prime-painted, glazed, wood cased and outside trimmed—delivered complete. All hardware included. Pre-fit inside wood trim if desired. It's America's first jiffy-installed, service-free, low-cost unit. Get Fenestra facts and prices. Use coupon.

THE NEW LOW-COST  
*Fenestra*  
PACKAGE WINDOW

DETROIT STEEL PRODUCTS COMPANY  
2260 East Grand Blvd.  
Dept. AF-9, Detroit, Mich.

Please send me the new Fenestra Package Window Catalog.

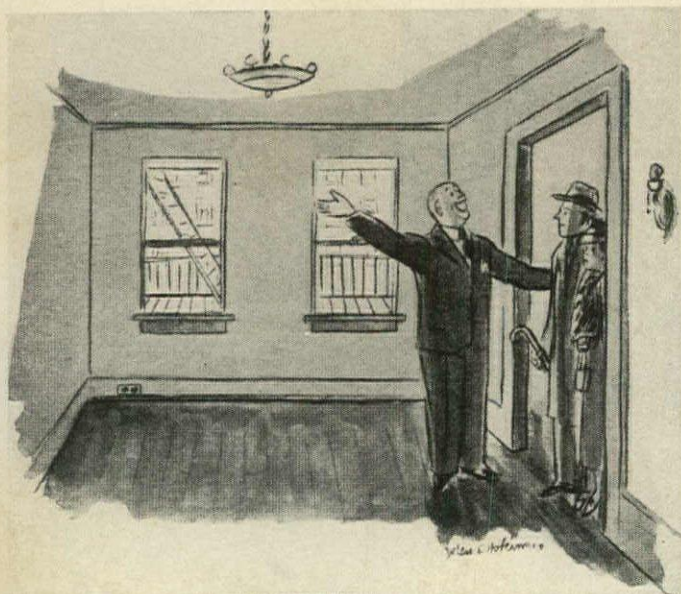
Name .....

Address .....

City ..... State .....



# BOOKS



"Now here is something really unique."

*New Yorker*



Washington, D. C., 1941



"... Ancestor of the lally column."

**ON BEING AN ARCHITECT**, by William Lescaze. G. P. Putnam's Sons, New York. 287 pp., illustrated. 5¾x8½. \$3.

To the average architect of the present time, who struggled painfully out the depression of the '30s only to see his office closed by priorities, and who, even during the few comparatively good years, had to watch his business being nibbled at on all sides by the industrial designers, the cut-rate speculative builders and Government bureaus, there would seem to be little that was encouraging to be written about his battered profession. Perhaps the most interesting thing about this book is that Mr. Lescaze, without indulging in wishful speculation, has been able to present a picture which is in essence optimistic. Despite the title and most of the chapter headings, the major emphasis of the book is placed not on the profession of architecture, but on architecture. To the intelligent modernist, architecture is an important social activity which, after a century of stagnation, now shows extraordinary promise, as regards both esthetic quality and greatly increased usefulness to the community at large. Obviously, the architect equipped with this long-range view of his profession will be optimistic, regardless of the present difficulties he may be facing.

The book is divided into three main parts, addressed to the layman, to the student and to fellow architects. It discusses the nature of the architect's profession, the nature of architecture now and in the past, the problems of office organization and job-getting, and the architect's role today. For the purposes of the student or layman who wants to find out something about the practice of architecture, both as a business and as an art, the discussion is clear, very intelligently organized and thoroughly documented. But the book is far more than a guide for the uninitiated.

Like his other progressive contemporaries, Mr. Lescaze has very little use for what the past century has produced in the way of architecture and architectural education. He has, moreover, a very definite idea of the basis on which good architecture is produced. To the substantial number of architects who still think in terms of the reproduction and modification of past styles, and who have watched with uncomprehending dismay the rapid development of the modern movement, much of what the author has to say will come as something of a surprise. They will find no evidence whatever of the modern architect's supposed contempt for all past building. "There is nothing more 'functional' about 'modern' architecture than there is about all the great buildings of the world from the Pyramids to the Louvre", says Lescaze. Or again: "Don't jump to the conclusion that you can afford to turn your back on everything which was built before 1942. You would be a fool. In the first place, you would be that much poorer spiritually. In the second place, you would remain ignorant and not learn how architectural excellence has been achieved in the past and through that knowledge learn how to achieve it in your time." The sincerity of such statements, expressing as they do a conviction held by all thoughtful modern architects, constitutes a very powerful support for the arguments advanced in favor of a more rational approach to contemporary building design. To many, of course, these arguments, together with the criticisms of period "architecture," will not be new. But to the general public they are still unfamiliar, and they cannot be repeated too often. In connection with Lescaze's spirited and thoroughly readable arguments for a contemporary approach to contemporary problems of planning and design, it must be said that

(Continued on page 196)



# ★ PLASTIC

## PUSH & KICK PLATES of FORMICA

Save  
SCARCE  
METALS

★  
★  
In color  
and black



**T**O protect the surfaces of doors that are subject to severe wear and frequent opening and closing Formica is able to offer plastic push and kick plates with many important advantages.

The colors available blend readily with most door surfaces. The colors have depth. The material is hard, non-porous and does not absorb stains or react chemically with any ordinary liquid. Hence the surface remains unchanged in color and appearance after long use.

The material is non metallic, but it is not brittle and will not be cracked by sharp impact. The smooth, hard surface is easily cleaned by wiping with a damp rag. It requires much less polishing than most materials previously used for the purpose.

The plates in four standard colors shown are sold by leading dealers in builders' hardware.

- ★ EASY TO CLEAN
- ★ STABLE IN COLOR
- ★ WON'T SPOT OR STAIN
- ★ WON'T CHIP OR CRACK
- ★ THEY STAND UP





# *In many* **HANDSOME MODERN BUILDINGS**

**Y**OU will find doors with Formica push and kick plates, or with surfaces completely covered with Formica, in many handsome modern buildings, railway, bus, and train terminals, public buildings in Washington, theaters, restaurants, hotels.

The material has been thoroughly tested and it has given long and satisfactory service over the years—maintaining its color, preserving its surface; serving, always, with a minimum of polishing and maintenance—important, nowadays, when labor is so scarce.

No location is too tough. The plates have been used on the swinging doors of railway stations where literally thousands of people go through each day, or on the swinging doors between kitchens and dining rooms in large restaurants where food servers are constantly opening and closing the doors.

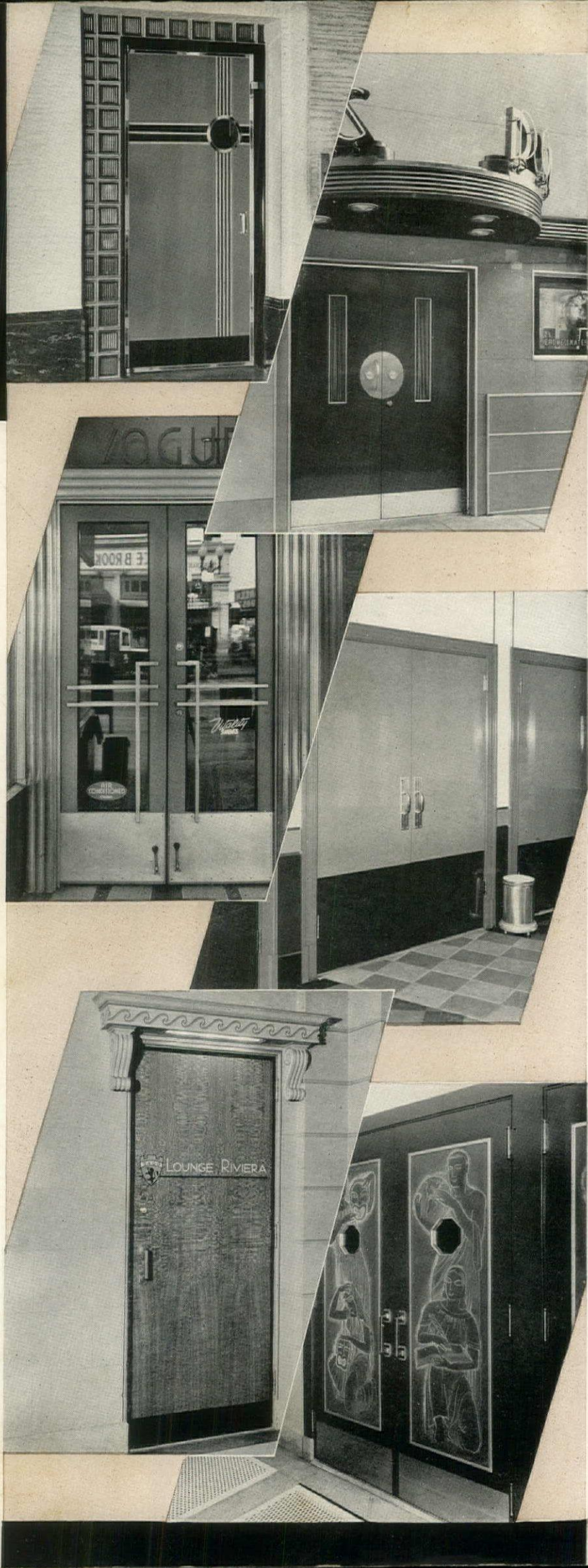
These standard plates, made in four colors and black, are  $\frac{1}{8}$  of an inch thick, have beveled edges, and are attached to door surfaces with screws inserted in counter sunk screw holes.

Your dealer in builders' hardware can provide them.

**THE FORMICA INSULATION CO.**  
4613 Spring Grove Ave., Cincinnati, O.



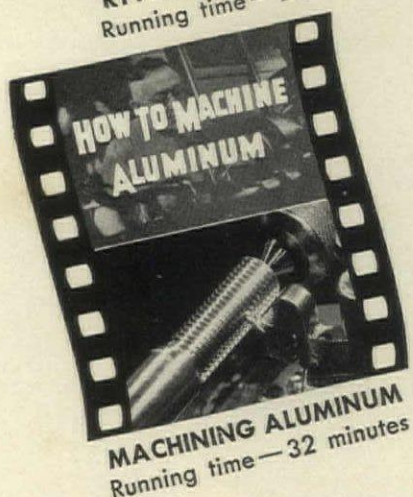
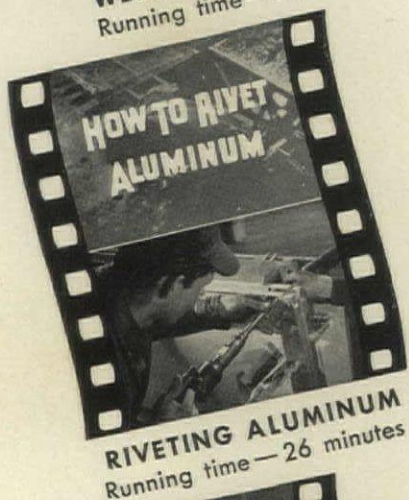
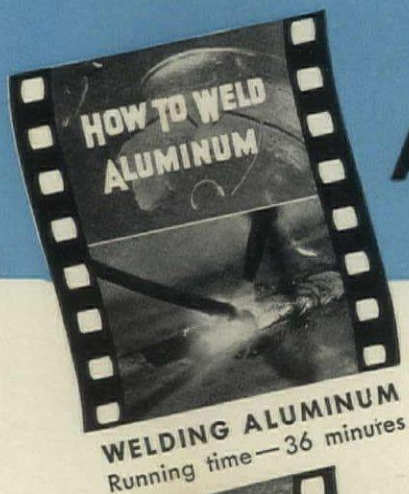
*for Building Purposes*





# 3 NEW FILMS

## FOR TRAINING ALUMINUM WORKERS



Valuable "how-to-do-it" data on Welding, Riveting and Machining Aluminum is contained in these three, brand-new sound motion pictures. Designed to supplement texts and teaching, these films are offered for your assistance in training war workers in the fabrication and assembly of Aluminum Alloy parts and structures.

No drama, no humor, no romance! Every foot of these films is packed with hard-hitting task instruction.

"How To WELD ALUMINUM" describes and demonstrates the various essentials of torch and arc welding, brazing and resistance welding. "How To RIVET ALUMINUM" portrays the making and testing of rivets, preparation of the work, actual rivet-driving techniques and inspection. "How To MACHINE ALUMINUM" discusses alloys usually used, the kind and shapes of tools, cutting compounds, speeds and feeds.

Task instruction is made easier.

### 35 mm. and 16 mm. SOUND PRINTS AVAILABLE FOR LOAN OR PURCHASE

Prints of these black and white, sound motion pictures are loaned free.

List the titles of the pictures you want . . . your first and second choice of dates when you want them . . . whether you want 35 mm. or 16 mm. prints . . . and the approximate number of days you expect to use them. (NOTE: These films can be shown *only on sound projectors*.)

If you want to purchase prints for your permanent library, they are available at cost, shipping charges prepaid. Prices follow.

	16 mm. with fibre container	35 mm. with metal container
How To RIVET ALUMINUM	1200-ft. reel . . \$42.80	2000-ft. reels . . \$103.80
How To WELD ALUMINUM	1600-ft. reel . . 62.70	2000-ft. reels . . 176.30
How To MACHINE ALUMINUM	1200-ft. reel . . 50.70	2000-ft. reels . . 123.55

Send your requests for loan or purchase to ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh, Pennsylvania.

See these films at the National Metal Exposition, Cleveland, October 12-16.

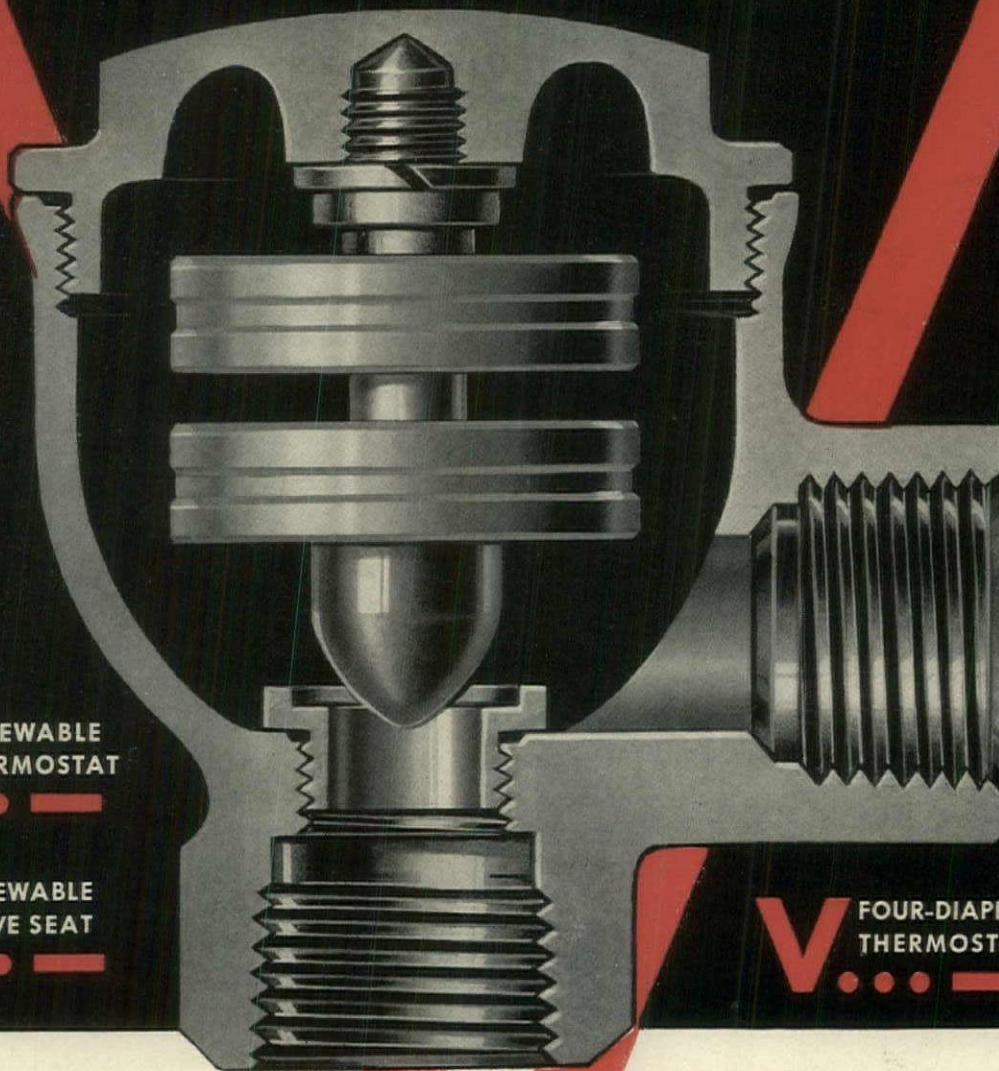
# ALCOA ALUMINUM





# NEW WAR TRAP

...Designed to save war-precious metals



**V** RENEWABLE  
THERMOSTAT

**V** RENEWABLE  
VALVE SEAT

**V** FOUR-DIAPHRAGM  
THERMOSTAT

The War Production Board told us what metals could be used—we designed to meet the specifications. So here's the new No. 17-D Trap, built with a minimum of critical materials, simplified, but retaining all the well-known Hoffman efficiency features.

Hoffman No. 17-D Trap is built not only to operate efficiently, but to *last*! Body and cap are of fine quality gray cast iron. Note the Thermal Element—not two but *four* non-corrosive Adnic diaphragms, full of spring, long-lived under countless flexings and high temperatures. The Pin is of tough special alloy—and the entire thermal assembly can be renewed.

That goes for the Seat, as well. If long use should cause wear at this point, simply unscrew the Seat and insert a new one. To all practical purposes, you'll have a new trap at minor expense. Other specifications:  $\frac{1}{2}$ " x  $\frac{1}{2}$ " connections, with left hand thread on inlet, operating pressure 15 lbs. and capacity 200 sq. ft. E.D.R.

Use the No. 17-D Trap for emergency repairs under the terms of Government Order P-84. And, of course, on direct war work, U. S. Government buildings, barracks, hospitals, defense plants, etc. For further information, write the Hoffman Specialty Company, Dept. AF-9, 1001 York St., Indianapolis, Indiana.

# HOFFMAN No. 17-D TRAP

CAST IRON

*Hoffman Valves, Traps, Pumps and Hot Water Specialties are sold everywhere by leading wholesalers of Heating and Plumbing equipment.*



## A Quarter-Mile Monitor of **INSULUX** *Daylight* Panels Bisects This Army Warehouse



ARMY WAREHOUSE. Architect Engineer: Mills, Rhines, Bellman and Nordhoff, Toledo. Consulting Engineer: R. C. Reese, Toledo. Contractor: Skilken Bros., Columbus, Ohio.

A quarter-mile-long central monitor of INSULUX *daylight* panels spreads floods of natural light over the loading platforms of this great Army warehouse.

"We found INSULUX Glass Block an efficient solution to the problem of lighting the work areas of this large U. S. Army warehouse," say the architect engineers, Mills, Rhines, Bellman and Nordhoff. "As anticipated, the glass block monitor panels provide ample natural light, well diffused for the central loading platforms. Other considerations were that the block could be installed quickly with minimum critical materials, are noncombustible, provide insulation, require minimum maintenance."

INSULUX Glass Block meet today's needs for a noncombustible, light-transmitting

material for war plants and warehouses. INSULUX helps conserve metal. Panels up to 50 sq. ft. are erected without even wall ties—larger panels need little metal.

INSULUX is economical—selling at pre-war prices—and cuts maintenance costs. *Immediate delivery* from stocks in principal cities. Our technical staff is at your service for special advice.

Owens-Illinois Glass Company  
INSULUX Products Division, Toledo, Ohio.

**OWENS-ILLINOIS**  
**INSULUX**  
**GLASS BLOCK**

*This Advertisement has been reviewed by the War Department.*





*Building. Plumbing Drainage Products .*



# THEY PLAN THE CITY OF THE FUTURE

## while they pray and work for victory

And so can you! What happens to your city in the first five years of peace may depend upon the plans you make, before peace comes, for the rebuilding of it. Replanning must be done, and the time is getting short. And your town or city is not excluded from those that need replanning and rebuilding.

Replanning for the rebuilding of a city is no task for laymen or uplifters to tackle. It requires trained talent such as architects and professional town and city planners. It is your duty, and the duty of men like you to undertake the research, organizing and planning work for your community. Selfish interests must be subordinated so that constructive leadership may emerge and become effective.

The scope of the work of replanning for the rebuilding of a town or city is beyond anything that has ever been attempted along this line in this country. Replanning must include practically everything related to the physical makeup of a town or city. Hence, you men who undertake this work need to understand the economic and social aspects as well as the technicalities of community planning. Town and city planning must be based upon social and economic research and experimentation. This will take time, a fact which further emphasizes the need for entering upon this important work immediately.

Town and city replanning involves much more than housing for the masses, or the mere elimination of blighted areas or uplifting the facades of commercial structures. Much replanning is being done in over one hundred towns and cities. This



**J. A. ZURN MFG. CO. • Sales Office and Factory, ERIE, PA., U. S. A.**

Zurn Engineers in their specialized field are on the alert, researching, inventing, designing to meet new needs that urban reconstruction will require. They are making and testing one device after another in a continuous endeavor to improve building and plumbing drainage systems. Their job is to supply Engineered Protection for human health in modern structures. Not for one moment are they in any way neglecting the performance of a vital service to the winning of the war. Indeed, they are helping to speed the construction of war production plants and housing for war workers. But to neglect the development of new devices for a new era of building would be unthinkable. While at war, we should prepare for peace.

provides guidance for those who are ready to undertake this work in your community. One of the important phases of this work is how to organize it so that Government agencies, private industry and organized labor may cooperate and produce a post-war prosperity and security. But before this can be attempted the architects and engineers, civic groups, building contractors, and building money factors must be organized into a cooperative group. Someone must be inspired to *want to do this work*. He will be the leader.

A great deal of factual information is already available to those who would participate in conducting research and planning for rebuilding your city. Some of it is available from these sources: National Resources Planning Board, National Planning Association, American Society of Planning Officials, Federal Housing Administration, which offers "A Handbook on Urban Re-development of Cities in the West," Federal Works Agency, and many others. Write us if we can be helpful to you in bringing you into contact with needed information.

The entire Zurn organization is keyed to the policy of stimulating project planning for post-war urban reconstruction. Our research and engineering activities keep us in touch with much of what is being done along this line. Such factual information as we have compiled on organizations, commissions, and agencies that are active in this work is available to you upon request. Architects and engineers, and others whom they may identify, are invited to send for our portfolio entitled, "A New Era For Building is Only Marking Time."



Zurn Engineered Carriers afford 4-Point Protection for wall fixture installations.



Zurn Roof Drains are available for every type of roof construction.



Zurn Floor Drains and Accessories meet every floor drainage requirement.



Zurn Plumbing Drainage Fittings include every item required for the installation of plumbing drainage systems.



J. A. ZURN MFG. CO., ERIE, PA., U. S. A.

Please register my name and the names of individuals and organizations attached, to receive a copy of the portfolio entitled, "A New Era For Building is Only Marking Time," of which I understand a limited number will be available when printed.

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City and State \_\_\_\_\_

No. 4224

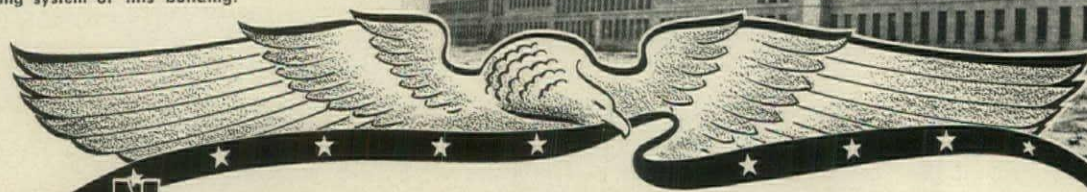
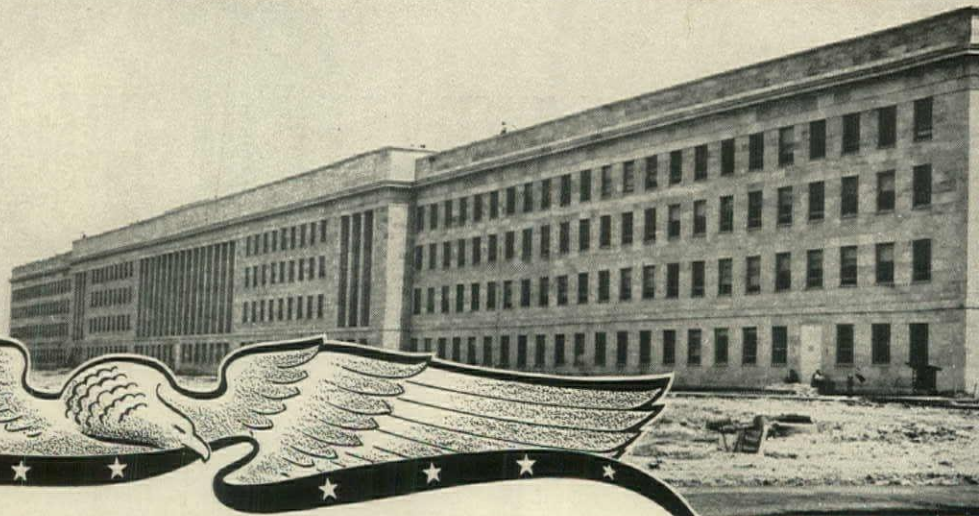
Please attach to your business letterhead

*Roof to Basement*



## Big facts

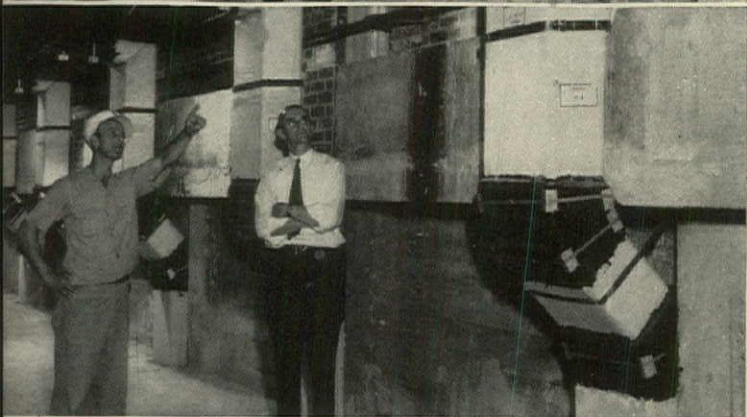
New War Department Building believed to be largest office building in world . . .  
Will house 30,000 workers . . .  
Air Conditioning System required approximately 25 miles of Careyduct . . .  
10,000 Careyduct Elbows and Fittings . . .  
80,000 pounds of Carey Adhesive Cement . . .  
A total of 65 carloads of material . . .  
Careyduct saved over 1,500,000 pounds of steel in the air conditioning system of this building.



# NEW WAR DEPARTMENT BUILDING *"An Air-Conditioned City in Itself"* SAVES 1,500,000 POUNDS OF STEEL

*by using*

**Careyduct**  
THE ALL-ASBESTOS INSULATED DUCT



**Meets Rigid Standards of Government Engineers — Advantages over Metal Demonstrated in Important Jobs all Over Nation.** Millions of pounds of steel have been saved by using Careyduct in air-conditioning the new War Department Building at Arlington, Va., and hundreds of other important public and private structures throughout the country.

Yet saving vital steel is but one of the many advantages of using Careyduct. Made entirely of asbestos, it is a natural sound absorber; hushes equipment noises and metallic "cracking" due to pressure changes or expansion strain. By reducing noise, higher velocities with smaller sizes may be used, solving difficult problems where space is limited.

Factory fabrication eliminates costly shop work; saves time, manpower. Silent erection permits installation in occupied buildings such as hospitals, radio stations, banks, etc. With all its advantages, Careyduct costs no more, frequently less, than insulated metal duct.

To conserve steel — insure better air-conditioning — specify CAREYDUCT. Write for full information, address Dept. 20.

### THE PHILIP CAREY MFG. COMPANY

Dependable Products Since 1873  
In Canada: The Philip Carey Co., Ltd.

Lockland, Cincinnati, Ohio  
Office and Factory: Lennoxville, P. Q.

Photographs in this advertisement released by Materiel Div., U. S. Army Procurement Div.

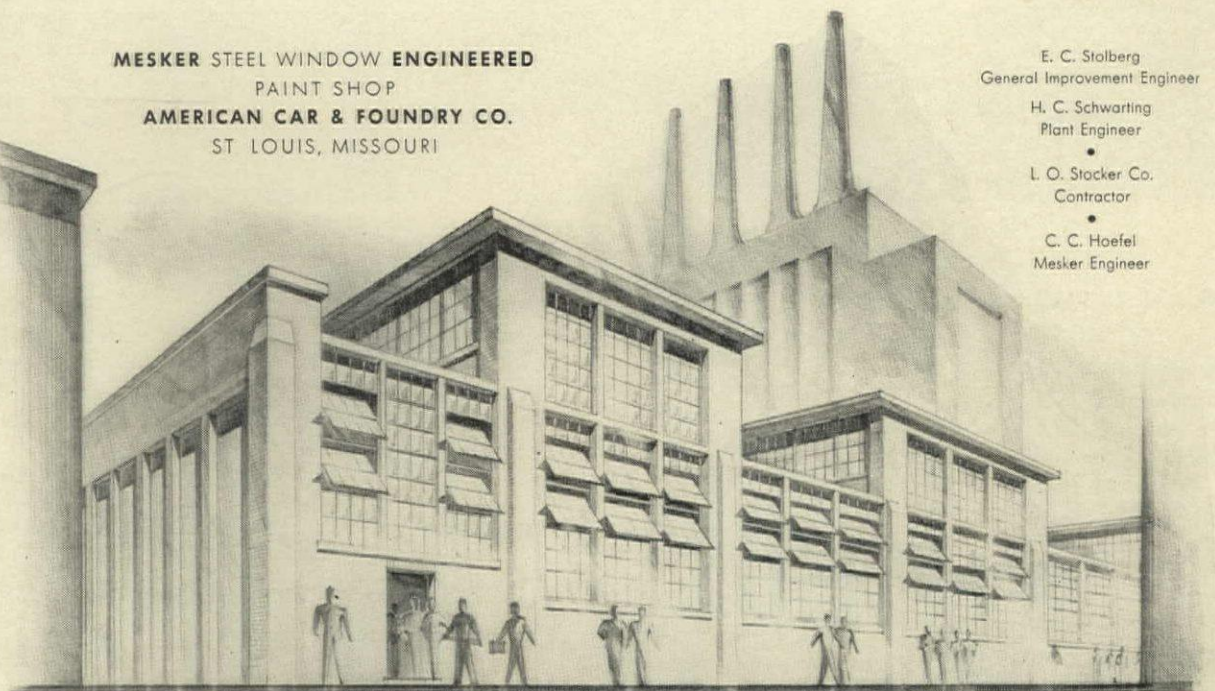
Architect: George Edwin Bergstrom  
General Contractors: John McShain, Inc.  
Heating and Air Conditioning: Baker Smith & Co., Inc.  
Mehring & Hanson Co.  
Consulting Engineer: Chas. S. Leopold



☆ WORTH REMEMBERING...THE STEEL SASH MERIT-METER PROVES MESKER GIVES YOU AT LEAST 35% MORE QUALITY FOR YOUR MONEY! ☆

MESKER STEEL WINDOW ENGINEERED  
PAINT SHOP  
AMERICAN CAR & FOUNDRY CO.  
ST. LOUIS, MISSOURI

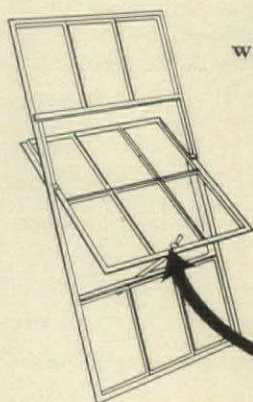
E. C. Stolberg  
General Improvement Engineer  
H. C. Schwarting  
Plant Engineer  
•  
L. O. Stacker Co.  
Contractor  
•  
C. C. Hoefel  
Mesker Engineer



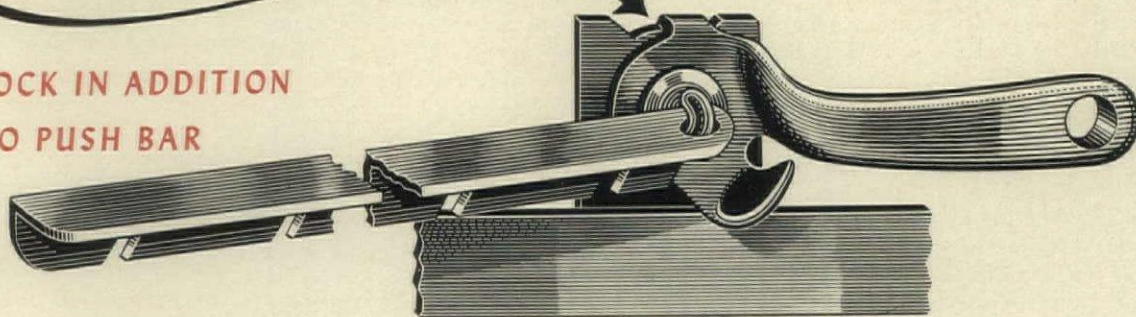
# ARMORED... long before the word became a common claim

A Steel Window is weather-tight **ONLY** when its Vent is in intimate, positive contact with its Frame. That's why Mesker, at no extra cost, furnishes a Cam Lock *in addition* to a Push Bar. Like the latch on a refrigerator, Mesker's Cam Lock **FORCES** the Vent to "hug" the Frame. As a result, Mesker Industrial Sash are really weather-TIGHT!

Next time, specify the Industrial Sash that doesn't leak nor waste valuable fuel and heat in winter time... MESKER Industrial Sash.



CAM LOCK IN ADDITION  
TO PUSH BAR



## THE DOUBLE THICK WEATHERING BAR

...used on Mesker Industrial Pivoted Sash is  $\frac{1}{2}$ " thick...twice that used by others in Industrial Steel Sash. This exclusive feature, so dramatically illustrated by the Visual Test Kit (free upon request), is indicative of the quality built into ALL Mesker products.

# Mesker Brothers

## STEEL SASH

424 SOUTH SEVENTH ST., ST. LOUIS, MO.

CASEMENT WINDOWS • MONUMENTAL WINDOWS • INDUSTRIAL WINDOWS  
INDUSTRIAL DOORS • METAL SCREENS • DETENTION WINDOWS



# LETTERS

## CAMOUFLAGE AND THEORY

### Forum:

As one who has been active in plant protection and camouflage, both in this war and the last, I was agreeably surprised by your competent article on Industrial Plant Protection in the August issue. It appears, however, that you suffered somewhat from excessive "assistance" from the Army camoufleurs in preparing that portion of the article dealing with protective concealment. While the Army produces excellent camoufleurs, it does not produce good writers on camouflage theory—and only the Army's excessive caution, I suspect, could produce a couplet like: "Man-made structures such as houses, barns, sheds, etc., may be simulated in the same way as trees and bushes. . . English experience with dummy structures has not, however, been very successful. . ." After a month at the Army's camouflage school, one learns that while it is not hard to do an acceptable camouflage job, it is next to impossible to make a categorical statement about how it should be done.

GEORGE FIELDING

Newark, N. J.

## MILITARY MELANGE

### Forum:

Thanks for letting us see all those pictures of the Naval Training Station at Great Lakes. You must realize that you have now recorded for your subscribers and for posterity what must be one of the finest cases of architectural schizophrenia in these United States. That subsistence unit, with the airflow plan and an exterior inspired by a 1934 Colonial model.

That recreation hall, with a facade right out of an advertisement for the coffee that just radiates Southern hospitality. Those new barracks, which, by the way, look suspiciously like the jobs they were apologizing for when we were in camp in 1918.

What I want to know is this: how does any outfit turn out such sentimental and inefficient rubbish and on the same job produce really outstanding buildings (officers' houses, reception center, drill halls?) I'm not so naive that I don't realize that every American town presents the same jumbled picture, that we have come to take chaotic groupings of buildings as part of the natural scheme of things. But why the Navy or any other Government agency? They don't have the excuse that seventeen different property owners on the same street have different architects and different tastes. I know too that the Naval Training Station was built in a

hell of a hurry, and that good design won't win a war. But the Bureau of Yards and Docks has some smart young designers bending over the boards. Why couldn't they do something better on the standard buildings than repeat the mistakes of twenty years ago?

Can't somebody do something about it? You may say that on the Training Station something was done about it, as much as could be done about it. But not enough. Maybe I'm getting old and impatient. But it shouldn't be so terribly hard to hasten the acceptance of rational building design. How long, O FORUM, how long?

M. J. HEWITT

Chicago, Ill.

## BROADWAY AXIS

### Forum:

I recall some time ago your publication of an extraordinary article by Robert Moses which you have now followed with another excellent piece on Baron Haussman from this exceedingly versatile gentleman. Still more recently, on August 26, in the *New York Times* I was dumbfounded to see reprinted the winning design in a competition for the rehabilitation of Battery Park, sponsored by the Fine Arts Federation. This I take it is another one of those ill-considered moves by some of New York's high-minded architects and planners to get in Mr. Moses' way. All of which again causes me to wonder why certain elements in the professional life of New York spend so much time attempting (fortunately without success as a rule) to negate the efforts of this man Moses? Why in God's name should anyone want to preserve the Aquarium in any form whatsoever? It's as much an eyesore as any slum in the city and even its finny tenants will be vastly better off in the new building which Moses is providing. Another dud in the FAF design is the proposed Avenue from the waterfront to Broadway. May I suggest that the members of the Jury go down and look at the site some time. Unless they are planning to straighten out Broadway, which is a more ambitious stunt than even Moses might attempt, they will find at the other end of the axis, not Broadway but the Standard Oil Building, which has about the same esthetic appeal category as the Aquarium.

Sure, Moses is a tough man. Sure, Moses pushes people around. Sure, Moses gives work to men who have earned his confidence,—so what? If the high-minded FAF citizenry had Moses' job, any of his jobs, we would still be wait-

ing for the East Side Drive, the West Side Highway, five or six hundred playgrounds, swimming pools and other recreational spots, the Triborough Bridge, the Bronx-Whitestone Bridge, the Belt Parkway and—you finish the list.

Let's get together and change the name of Fifth Avenue to Boulevard Moses.

J. G. WHITMAN

New York City

## BUILDING, NOW AND THEN

### Forum:

My appreciation for the sane approach to architectural problems clearly visible in the work published in your magazine. Such men as Neutra, Gropius and Breuer, Saarinen, Aalto, Wurster, Carl Koch, Albert Kahn and others have had a profound influence upon the development of, and the approach to architecture here.

Apart from the subject matter published, the method of presentation in the FORUM does induce every keen student (no matter how old) to enthuse over prospects for future development and reconstruction. I agree with the essence of "Building's Post-war Pattern" and agree with the insistence upon "Building for Defense" (today's No. 1 job). Please hammer at these crisply and often . . .

We of the younger generation will break our hearts if results do not appear, if conditions do not change, soon. That is what we are fighting for.

RONALD BATH

Melbourne, Australia

## DUBIOUS TASK

### Forum:

In your article on *Smudges*, the August FORUM, page 6, the following statement is made: ". . . with the *dubious* exception of the *short-lived Task*, there has been no American student paper to match these fighting publications . . ."

The use of the word *dubious* in this statement seems dubious to the editors of *Task*. However, we recognize that you are entitled to your opinion and the expression thereof. For other opinions of *Task*, see the latest issues of *Smudges* and the *Architectural Review*.

We object to the premature burial that the words *short-lived* imply. *Task* is very much alive. No. 3 is now in preparation and will appear in October.

ROBERT H. ROSENBERG

Cambridge, Mass.

Apologies to the Task force for their premature obituary. Of the two issues published, No. 1 appeared in Summer, '41 and No. 2 Feb. '42. Nos. 3 and 4 scheduled for October '42 and Winter '43 respectively.—Ed.





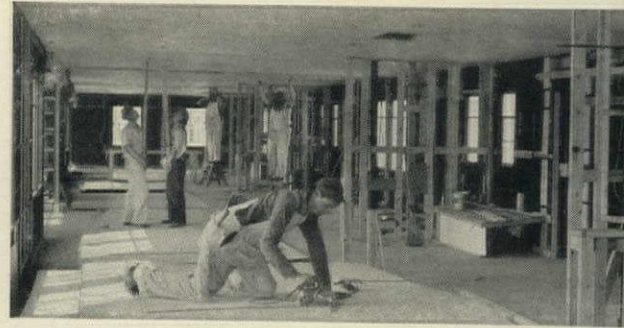
# AN ANSWER



## TO THE NEED FOR GREATER SPEED IN WAR HOUSING

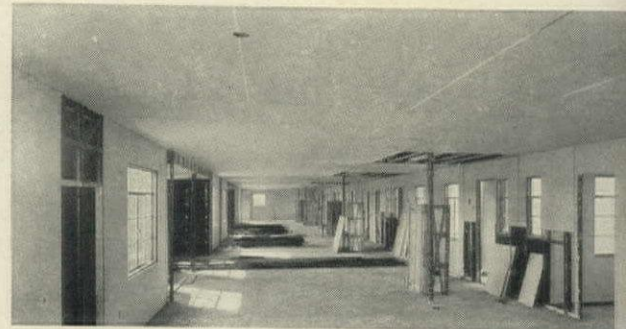
► **FULL WALL CONSTRUCTION** with *Upson Strong-Bilt Panels* for interior linings is saving *weeks* on numerous war housing jobs *now!*

On projects of 100 units or more, panels measuring up to 8' by 14', numbered and pre-cut to specified size, are delivered to the site, ready for immediate application to framing. Simple Floating Fasteners grip panels securely from the rear.



► **NO TIME IS LOST** in cutting, taping or filling of joints. There are no nails to countersink. No nail holes to fill.

Painting starts immediately following application. One coat usually is sufficient on the factory-finished, pre-sized surface of Upson Strong-Bilt Panels—never more than two. Interiors on one 500 house project completed in 77 working days.



► **NO OTHER MATERIAL**, we believe, so fully meets speed and quality specifications. Upson Strong-Bilt Panels are thick, strong, rigid and durable—vastly improved over old materials.

They assure low maintenance cost. They provide efficient insulation—*double* that of plaster. Their smooth-pebbled, *fuzzless* surface produces walls and ceilings of surpassing beauty.



*Use of Upson Strong-Bilt Panels offers an economical speed system involving plentiful materials and a method for spreading available man power over a greater number of units. Time and cost-saving construction is combined with exceptional beauty and permanence. Field Supervisors, trained in the elimination of non-essential operations, and with "know-how" gained on dozens of big projects, can be supplied. FHA accepted. For important data and quick action, contact The Upson Company, Lockport, New York.*



**UPSON  
STRONG-BILT  
PANELS**

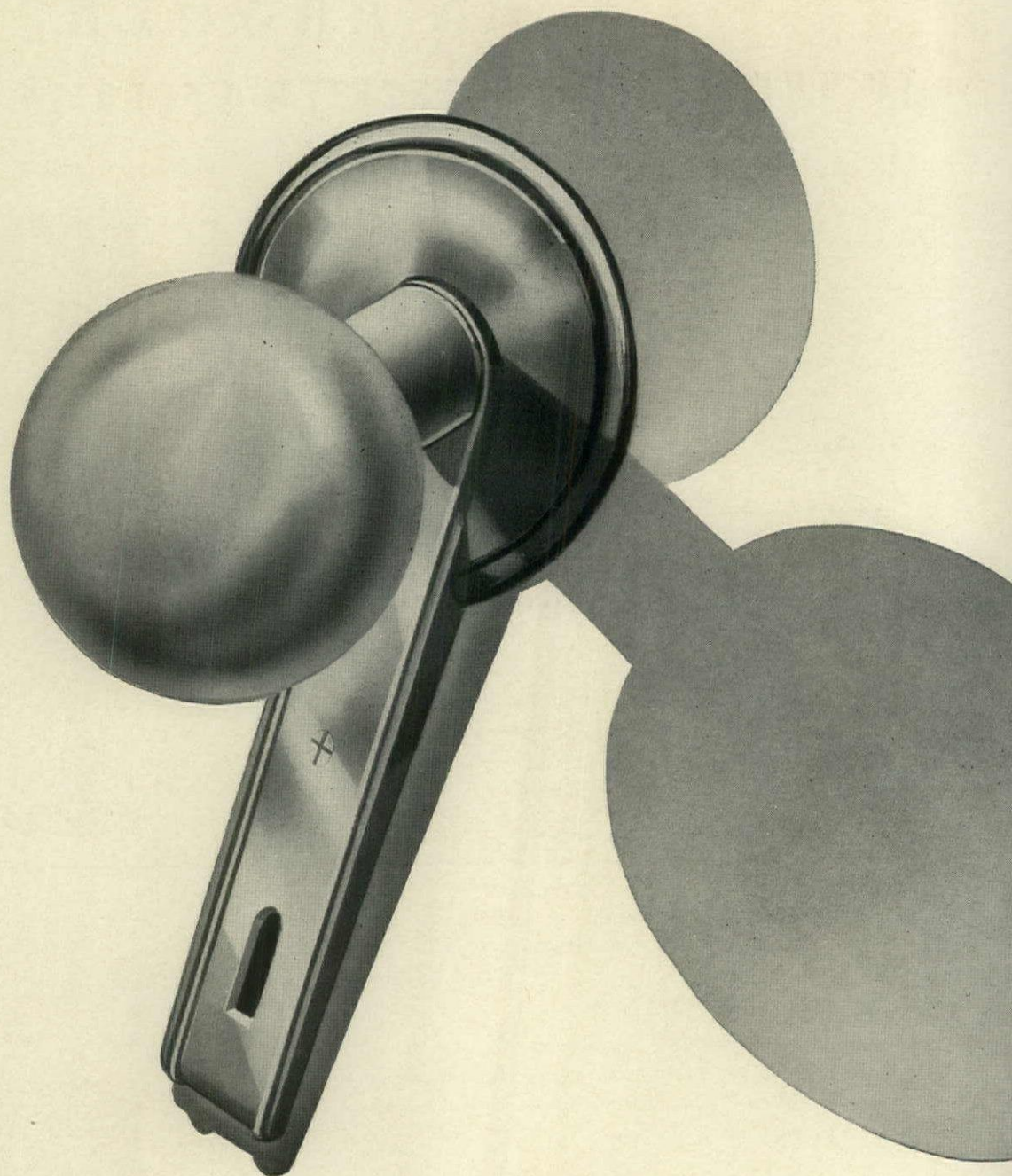
Genuine Upson Panels Always Can Be Identified by the Blue-Center

## THE BEAUTY SURFACE FOR WALLS AND CEILINGS



"... an ugly doorknob made by hand is a regrettable incident, but a million vulgar doorknobs in use are a calamity."

DOUGLAS COCKERELL, London, 1942, at a meeting of the Royal Society of Arts



*Architect and designer R. Doulton Stott suggests a design for a doorknob and escutcheon making use of colored plastics together with burnished metal. The rose and escutcheon, as well as the ball type knob, are of plastic, while the shank and escutcheon plate insert are of burnished white or brass metal.*

READING presents the seventh of a series of hypothetical designs submitted by members of the profession as a stimulus to better design in hardware for building post-war America.  
READING HARDWARE CORPORATION, READING, PENNSYLVANIA

---

GOOD HARDWARE **READING** SINCE - 1851





CLIP THIS COUPON AND  
MAIL TODAY FOR YOUR  
**FREE COPY**

Dept. 7-N,  
Westinghouse Electric & Mfg. Co.,  
East Pittsburgh, Pa.

Gentlemen:

Please send me \_\_\_\_\_ copies of the new 1942-1943  
Architects and Engineers Data Book.

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

J-94512

## READY NOW

Expanded to 178 pages... including new and useful information to help save time planning, selecting and specifying steam and electrical equipment of all types. Information includes: APPLICATION, FEATURES, HOW TO SELECT, DIMENSIONS, TYPICAL SPECIFICATIONS; and in addition, a special new Engineering Data Section with handy tables, formulae and price curves. Use the coupon above. Send for your FREE copy today.

**WESTINGHOUSE ELECTRIC & MFG. CO.**  
EAST PITTSBURGH, PA.

ARCHITECT'S AND ENGINEER'S

DATA BOOK

1942...1943



The homes that can't be built  
today will be better built  
tomorrow because of these

# ANACONDA

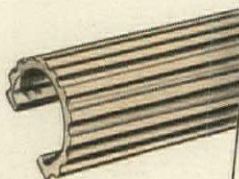
**N**ON-FERROUS product developments which promote efficiency and reduce upkeep will always be the fruit of Anaconda's alertness to changes and resourcefulness in research.

In the past two decades, Anaconda's engineering experience accounted for the major product developments you see on these pages. Through them, thousands of homes have been made more livable, more economical. With peace, these products of Anaconda Copper and Brass... and possibly some new companions... will be ready for a booming building industry.

4213

## 1900 EXTRUDED SHAPES

Introduction and development of the extrusion process for architectural bronze and nickel silver.



## 1922 ANACONDA BRASS PIPE

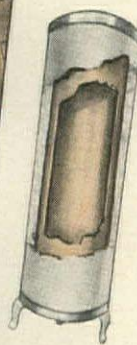
Introduced and promoted Brass Pipe for plumbing. Later developed Anaconda 85 Red Brass Pipe after a nationwide 10 year study of water corrosion.



## 1927 EVERDUR\* METAL

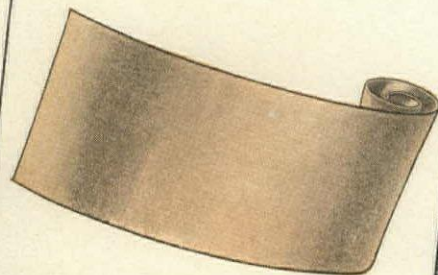
Commercial development of high-strength, weldable copper-silicon alloys leads to use for water tanks.

\*Reg. U.S. Pat. Off.



## 1932 "ELECTRO-SHEET" COPPER

New process makes wide, thin copper available for low-cost, lasting, damp-proofing, weather-proofing and concealed flashing.

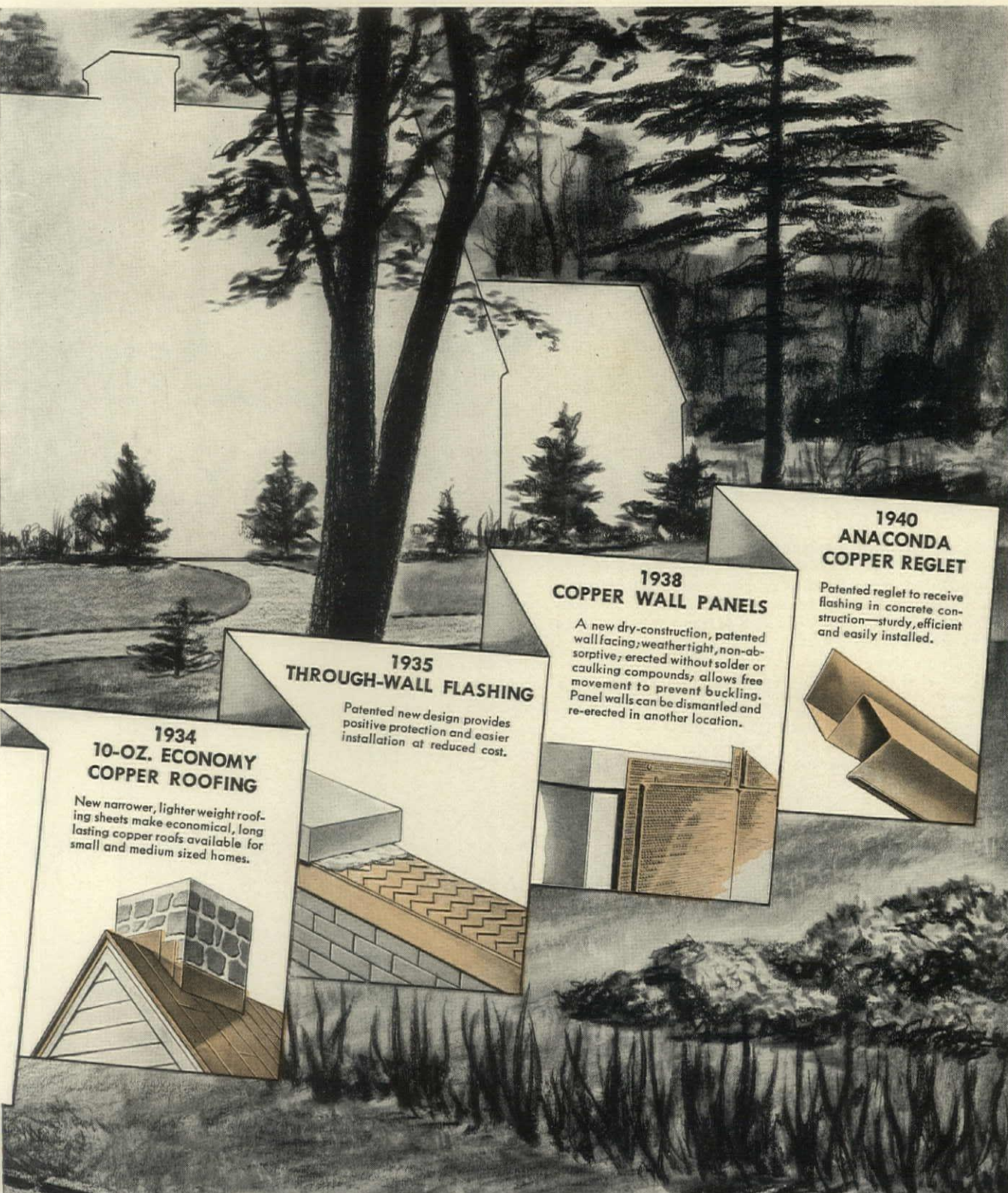


# The American Brass Company

General Offices: Waterbury, Connecticut, Subsidiary of Anaconda Copper Mining Co.

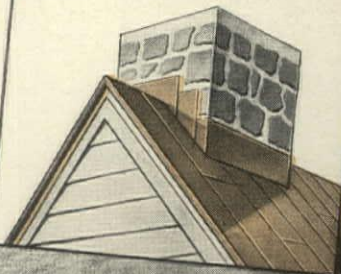


# DEVELOPMENTS



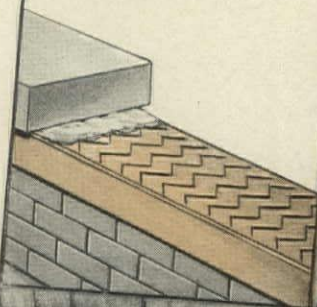
## 1934 10-OZ. ECONOMY COPPER ROOFING

New narrower, lighter weight roofing sheets make economical, long lasting copper roofs available for small and medium sized homes.



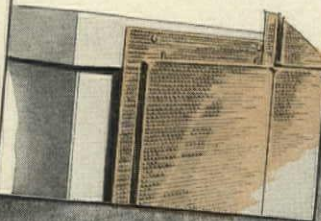
## 1935 THROUGH-WALL FLASHING

Patented new design provides positive protection and easier installation at reduced cost.



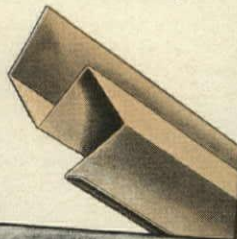
## 1938 COPPER WALL PANELS

A new dry-construction, patented wall facing; weathertight, non-absorptive; erected without solder or caulking compounds; allows free movement to prevent buckling. Panel walls can be dismantled and re-erected in another location.



## 1940 ANACONDA COPPER REGLET

Patented reglet to receive flashing in concrete construction—sturdy, efficient and easily installed.



makers of

*Anaconda Copper & Brass*

In Canada: Anaconda American Brass, Ltd., New Toronto, Ontario



# A COLOSSAL JOB...WELL DONE



The "HIGH POINT" War Housing Project Makes Good with Non-Critical



## RED CEDAR SHINGLES

This tremendous development, designed by J. Lister Holmes and Victor N. J. Jones, A. I. A. architects, to house approximately 2,500 war workers and their families, was completed in 200 calendar days. The project comprised 700 units, using 5,400 squares of Certi-grade Red Cedar Shingles on the roofs (100%) and 2,300 squares double-coursed on the sidewalls (40%).

Why were Red Cedar Shingles specified for this job as well as for many other defense areas during this critical period? Because of the appreciation by those responsible of the substantial appearance, care-free service, excellent insulation and weather-resistant qualities of Red Cedar Shingles.

Their known good qualities have been proven by years of service since the days of the pioneer.

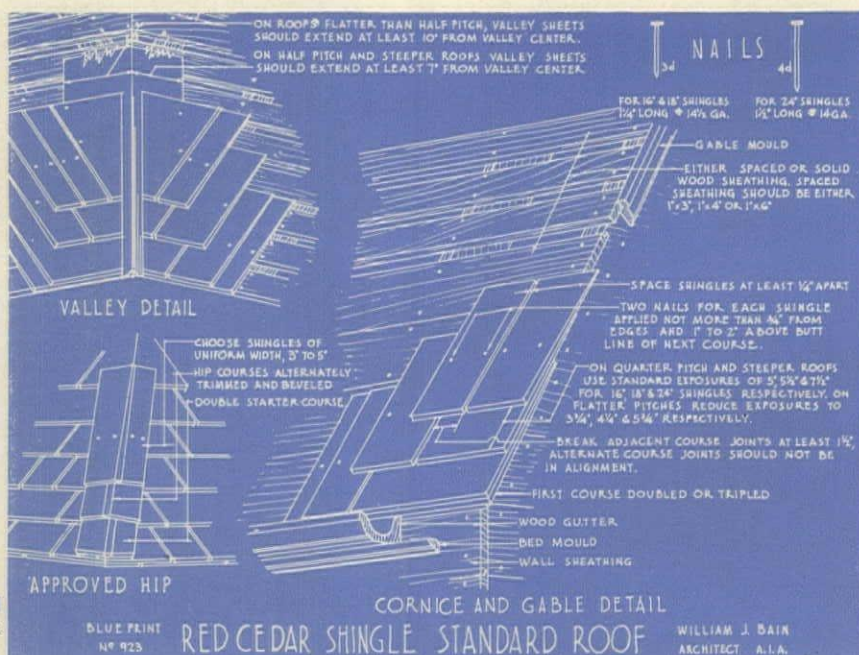
### BLUEPRINT SERVICE FOR ARCHITECTS

A complete set of architectural blueprints will be sent you absolutely free. They feature the application of Red Cedar Shingles for standard and staggered roofs; double-coursed and single-coursed sidewalls; and over-roofing. Just fill in coupon and mail. Address—

### RED CEDAR SHINGLE BUREAU

5508 White Building, Seattle, U. S. A.  
Metropolitan Building, Vancouver, B. C., Canada

★ ★ ★ ★ ★ ★ ★  
**BUY U. S. WAR BONDS**



RED CEDAR SHINGLE BUREAU  
5507 WHITE BUILDING, SEATTLE, WASHINGTON

GENTLEMEN: Please send, free, a set of Architectural blueprints of Shingle Applications.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_



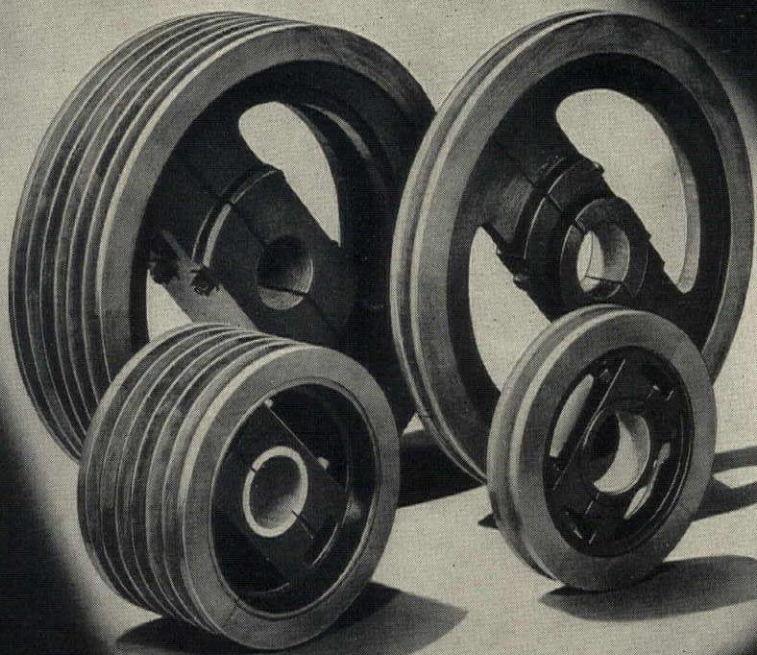
**Red Cedar SHINGLES**



# For Future Reference:

Wood sheaves for V-Belt Drives. Made of straight grain, kiln dried hard maple, laminated with CASCO powdered casein glue.

Dodge Mfg. Corp., Mishawaka, Ind.



**T**HESE wood sheaves, born of priorities, are efficient. They don't have to be attractive, but they are, because they're wood.

File the idea until you design a piece of home "machinery" that may have to withstand heat, friction or vibration—and yet be light and pleasant to the eye and warm to the touch.

Wood and glue, together, make a new "warpless" material with age-old beauty in its very grain.

When you design it, ask us how to glue it.

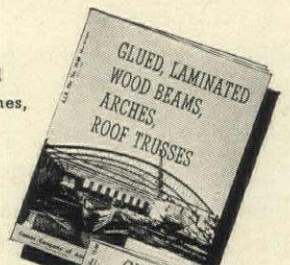
## CASEIN COMPANY OF AMERICA

DIVISION OF THE BORDEN COMPANY

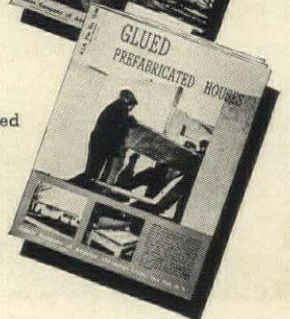
Technical Service Dept. 350 Madison Ave., New York, N. Y. Manufacturers of CASCO Powdered Casein Glues, CASCAMITE Urea-formaldehyde Resin Glues, CASCOPHEN Phenol-formaldehyde Resin Glues—for plywood, laminated wood, joint or bag gluing

### SEND FOR THESE BOOKS:

A. I. A. Folder  
"Glued, Laminated  
Wood Beams, Arches,  
Roof Trusses"



A. I. A. Folder  
"Glued Prefabricated  
Houses"







# Got some big ideas for the Small Homes of 194X?

FOR BETTER HEATING AND AIR CONDITIONING...TURN TO

TO ALL you architects who will plan the post-war homes of America, the door is wide open for fresh thinking. But whatever shape your plans may take, this much is certain: you will provide for year 'round thermal comfort far greater than anything known before the war.

You will want compact, low cost, economical automatic heating and air conditioning. And you will find a complete line of such equipment provided for you by G-E. For the work we are now doing to help assure Victory should surely lead to the finest, most complete range of home conditioning units in G-E history. General Electric Co., Div. 2139, Bloomfield, New Jersey.

**GENERAL  ELECTRIC**



## FOR HEATING:

	OIL	GAS
Boilers	✓	✓
Conditioned Warm Air Units	✓	✓
Space Heaters	✓	

## FOR COOLING:

Room Conditioners	✓
Central Plant Systems	✓
Store Coolers	✓
Air Circulators	✓



# One solution to all six wall problems!

What a difference! When you compare the various types of wall material feature by feature. For Nairn wall linoleum alone satisfies all the six "musts" of the modern wall.



1. **EYE APPEAL**—Wide range of handsome colors from soft pastels to rich, dark tones. Insets and feature strips make decorating possibilities almost limitless!
2. **COLOR CORRELATION**—Nairn walls are correlated both with Nairn floors and all the modern home furnishings. Now it's easy to plan harmonious interiors!
3. **EASE OF CLEANING**—Waterproof, stainproof Nairn wall linoleum is simplicity itself to clean. A damp cloth keeps original beauty intact.
4. **SMOOTH FLEXIBILITY**—Nairn wall linoleum can be rounded at corners, doors and windows. Forms a continuous smooth surface without cracks or wrinkles!
5. **LONGER WEAR**—Refinishing is never needed. Because colors are inlaid right through to the back, walls of Nairn linoleum last as long as the house itself.
6. **EASE OF APPLICATION**—Can be installed over both old and new walls without costly preparatory work. Walls of new houses may be covered as soon as plaster is dry—providing permanent, crack-free surfaces! Fully guaranteed when installed according to specifications.

CONGOLEUM-NAIRN INC., KEARNY, NEW JERSEY

**BEFORE...**

## A "Cinderella" Bathroom

—typical of many similar opportunities for modernization with Nairn wall linoleum. Note the dreary lack of color that cries for some warm, cheery tones—the easily smudged walls that housewives find a constant bother to keep clean. More than that, dirt-catching corners make this room positively unsanitary. To completely modernize seems a real problem—but see below what Nairn wall linoleum can do.

**AFTER...**

## A complete transformation

—with a minimum of structural changes. Lustrous "Rose Agate" wall pattern gives the room the needed sparkling effect—and blends perfectly in true Color Correlation with the Nairn Treadlite floor. See how smoothly the linoleum carries around the curved wall section. There'll never be a crack or wrinkle to spoil its beauty—and a damp cloth keeps it permanently clean. (Below) Close-up of Rose Agate shows the characteristic soft veining.



**NAIRN** WALL  
—  
LINOLEUM

Reg. U. S. Pat. Off.



# MUELLER suggests . . .

## a high heating standard

### for the house that will win public acceptance in peacetime competition

The house of the future — however ingeniously designed — cannot have a broad appeal to the public unless it sets a high standard in heating.

To do so is not difficult. The basic advances have already been made. They require only a wider usage . . . a more complete realization of the vital part heating plays in the all-around satisfaction of your ultimate client, the home owner . . . an expanded market, to make possible the economies of volume manufacture and distribution.

Mueller, for example, has concentrated its engineering facilities over a period of 85 years upon the development of compact, goodlooking heating units to meet the specifications for maximum efficiency. Such units, even for the smallest homes, are practical and proven in use . . . ready for the post-war market.

Mueller at present is devoting a large part of its facilities to war production, while carrying on with such furnace manufacture as is permitted



under present restrictions — but Mueller engineers are continuing their program of design and development without interruption. Look to Mueller for continued advances in heating equipment. *L. J. Mueller Furnace Company, 2001 W. Oklahoma Ave., Milwaukee, Wis.* B-10

★ ★ ★

## BUY WAR BONDS

— save for the future  
and help the war effort NOW!



DESIGNED FOR GAS. Mueller winter air conditioner, completely automatic.

# MUELLER

## Milwaukee

HEATING AND  
AIR CONDITIONING



DESIGNED FOR COAL. Mueller winter air conditioner, matching attractive appearance of oil and gas units.



DESIGNED FOR OIL. Mueller winter air conditioner, completely automatic.



FOR THE HOME OF 194X...

222,000

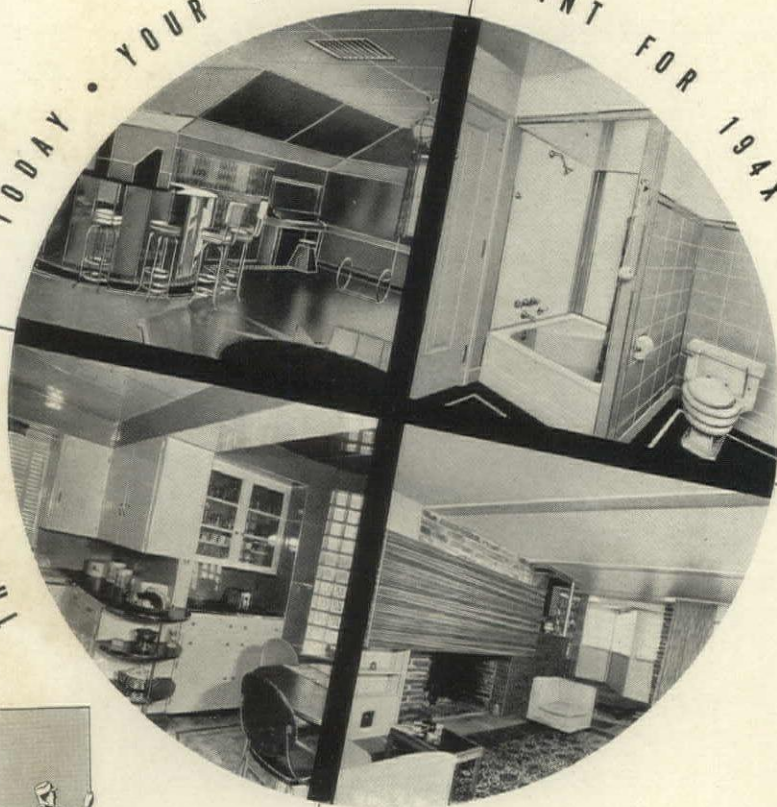
$$\frac{N(N-1) \dots (N-n+1)}{n} \cdot g \cdot p = C$$

NEW

IDEAS

ORIGINATE WITH PLASTIC-FINISHED MARLITE

THE LAST WORD TODAY • YOUR STARTING POINT FOR 194X



WHAT are the homes of 194X? They are the ideas in the back of your mind, skilfully combined with the home-maker's unrealized dreams of comfort, cleanliness, convenience, beauty and ownership. They are gay, revolutionary kitchens; smart, ultra-sanitary bathrooms; distinctive, "never before" living and dining rooms; carefree game rooms; restful studies; welcoming halls . . . all completely utilizing Marlite color, flexibility and adaptability.

75 lustrous Marlite colors, including wood veneer and marble patterns . . . 10 and even more individual shapes . . . adaptable to every room in the house! What a wealth of ideas and opportunity Plastic-Finished Marlite presents to satisfy client demands for originality, utility, distinctiveness and reasonable cost. Marlite's large wall-size panels may be cut to any wall or ceiling shape and surface—easily, permanently installed. Its low cost makes it practical for the most modest home, yet its rich beauty enhances the finest. It meets every house-keeping test—never gets so soiled a damp cloth won't renew its original beauty. Marlite pioneered high-heat-baked prefinished wall paneling. Marlite is the "newest" of the new materials, yet it has stood every "test of time."

Why not send for the full color "idea" book showing what already has been done with Plastic-Finished Marlite? Let it be your "springboard" in planning the home of 194X! Mail the handy coupon today.

Marlite

For creating beautiful interiors. Large, wall-size panels in lustrous colors and patterns; for homes, hotels, stores and markets, hospitals and laboratories.

MARSH WALL PRODUCTS, Inc. 91 Marsh Place, Dover, Ohio

MARSH WALL PRODUCTS, INC. • 91 Marsh Place • DOVER, OHIO  
Please send without charge your book showing unlimited range of beautiful interiors obtainable with Plastic-Finished Marlite.

NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_





**In this coming  
War-winter  
be the  
HEATING WARDEN  
For Your Clients'  
Buildings**

Building owners know now that they must save fuel. This fuel may even be rationed. They are eager to give their share for Victory because their sons are at the Big Front, and while these boys are away, the home folks are out to hold the Home Front. They are stinting, saving, striving to do without in order that the guns may be served.

Help them in their efforts. An expert word from you now will speed their action. Don't let them wait until fires are started. Urge them to inspect their boilers now. Have them call in a competent heating contractor to take those steps which will conserve those boilers needing repairs. Most important of all, recommend immediate action where boilers should be replaced. By such action on your part you will be performing a vital and necessary function — one which will help your community play its wartime part.

We who build SPENCER BOILERS will assist you in every way we can.

**SPENCER HEATER**

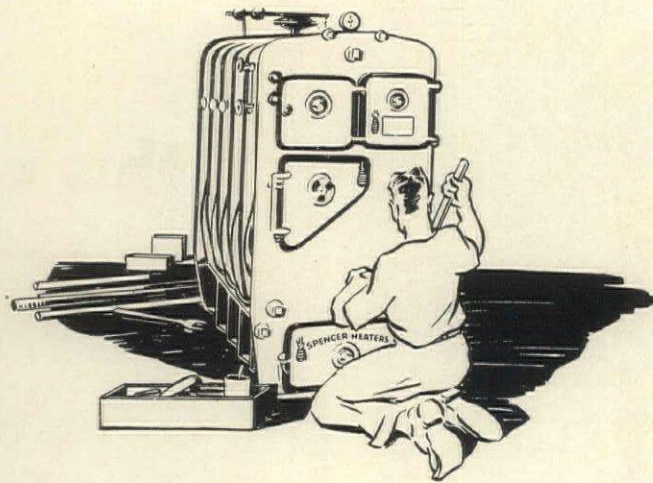
Division — The Aviation Corporation  
Williamsport, Pa.

**SPENCER BOILERS**

**Magazine Feed Heaters — "K" & "C" Steel Boilers for Homes**

**"A" Type up to 42,500 feet (steam) for Large Buildings**





# Replace All Old Rickety Boilers — NOW!

*Immediate Deliveries  
of **SPENCER** Magazine  
Feed Heaters Are Per-  
mitted For Replace-  
ment Needs In Any  
Area*

You know Spencers and what they can do to conserve fuel and save the pocketbook. You know they furnish the most comfortable heat in the world — and the cheapest — whether the heating

job is for the average home or the large building. They stoke automatically — without motors or moving parts — small size, low cost anthracite or coke. They require attention only once in 24 hours — in milder weather once in two days. And they can easily be equipped with the Spencer Victory Summertime Hot Water Hook-up. Best of all — your building owners can lay in a full winter's supply of fuel — right now.

Remember — there is a complete Spencer line — in normal times always a full inventory of boilers, from the biggest "A" Type (42,500 feet, steam) to the "C" and "K" boilers for large and small home use. Ask for catalogs.

## SPENCER HEATER

Division — The Aviation Corporation  
Williamsport, Pa.

# SPENCER BOILERS

*A Size and Type for Every Fuel and Building*





## Out of the dust and rubble will rise a city of steel

**W**AR'S destruction teaches many lessons. One is that man must build better and stronger. Of those buildings miraculously left standing in the midst of rubble and ruin — many owe their safety to steel.

To the architect who is planning tomorrow's homes, shops and factories, that has more than ordinary significance. Strength and safety are fundamental requirements in all durable structures. But while basic, they are not the only consideration. And that is where steel proves its unusual merit.

For out of the laboratory of war, steel will emerge even more versatile, more adaptable and more suited to the needs of modern construction. It is no idle prophecy that the material which proved

the most potent weapon of destruction will also prove its superior usefulness to the arts of peace.

The architect seeking to combine strength and safety with beauty will find on turning to steel that freedom of choice so essential to creative design.

From the war of the nations must inevitably follow the war of materials. Survival is merely a question of merit. Today, your attention is necessarily directed to the materials at hand. But tomorrow it will be different. You will have the privilege of choice. Expect big things of steel. For you will find that steel, one of the oldest products of the arts, is still the newest—the natural choice for the cities of the future, where strength, beauty and utility will be combined.

---

### HOW STEEL IS IMPROVING CONSTRUCTION

**Faster, cheaper construction.** Better ways to use steel have resulted in buildings being completed months ahead of schedule, with large savings in cost.

**Stronger, more flexible construction.** New methods of fabrication with steel make buildings more resistant to explosions, fire, earthquake, lightning and storms of all kinds.

**More durable construction.** Steel can be made as corrosion-resistant as you want by proper alloying or surface treatment. U-S-S Stainless Steel, COR-TEN, Copper Steel, VITRENAMEL, Paintbond, Dul-Kote, Terne plate, Galvanized steel—all have different degrees of corrosion resistance making them suitable for particular jobs.

**Better designs in steel.** Architects are contributing immeasurably to the better use of steel. Business buildings, factories, homes are not only practical, but beautiful when correctly designed with steel.

---



CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh and Chicago

COLUMBIA STEEL COMPANY, San Francisco

TENNESSEE COAL, IRON & RAILROAD COMPANY, Birmingham

Scully Steel Products Company, Chicago, Warehouse Distributors

United States Steel Export Company, New York

# UNITED STATES STEEL



"Congratulations on a Good **START**  
...let's make it a Strong **FINISH**"



## Let's give Defense Homes strong Home Defense with White Lead

Today architects must "do the impossible"... give America defense homes *fast* ...at restricted prices...yet provide the charm and quality that make houses *homes*. And they've made a real start.

It's a man-size job... takes ingenuity and skill aplenty—not only in design and construction, but particularly in the selection of materials. For, despite shortages and the price limitation, these homes must be built to stand up.

We don't have to tell you that good paint is the best life insurance a house can have—or that good paint's other

name is Dutch Boy White Lead. You know from personal experience that it hangs on with real Dutch tenacity... never cracks and scales.

But, because of the price ceiling on defense homes, we do want to remind you that, in spite of its well-established, well-founded reputation for high quality, paint made from Dutch Boy Paste Lead is actually in the *low price bracket*. In fact it's not only low priced per mixed gallon of paint but downright *thrifty* per year of protection.

And since we're talking about economy remember, too, that Dutch Boy can be used for practically any painting purpose. It's suitable for either two- or three-coat painting—and gives

topnotch results on any surface: wood, brick, stucco, concrete or plaster.

Now that we've made such a good start on this defense housing job—let's make it a strong *finish*—with Dutch Boy!

### New Dutch Boy Paint Unsurpassed for Two-Coat Sealing and Hiding

Where ready-to-use paint is wanted, we suggest you give professional consideration to the new Dutch Boy Pure White Lead Paint. It combines the stubborn Dutch sturdiness of White Lead with sealing, hiding and whiteness unexcelled by any two-coat combination on the market. Comes in two special forms—Exterior Primer and Outside White—both pure white lead, all ready to spread. Used together they give results you'll be proud of, on new or old wood.



**SPECIFY DUTCH BOY PURE WHITE LEAD**

**NATIONAL LEAD COMPANY**  
New York, Buffalo, Chicago, Cincinnati, Cleveland, St. Louis, San Francisco, Boston (National Boston-Lead Co.), Pittsburgh (National Lead & Oil Co. of Penna.), Philadelphia (John T. Lewis & Bros. Co.).



# AWNINGS AND SHADES GO OUT Where Frosted AKLO Glass Goes In



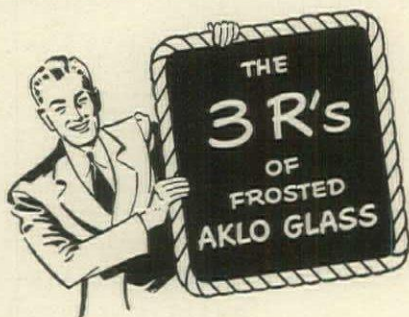
CASE HISTORY No. 9

## Machinery Manufacturer

"In our last plant addition, using AKLO Frosted glass, all awnings and shades were eliminated. In fact, we had our men working directly in front of windows in the west elevation without the slightest glare or discomfort, also giving them adequate light for the most particular type of work."

"At the present time, we have an entirely new plant under construction, and without any doubt this building will be glazed with AKLO Frosted glass."

## Frosted AKLO Filters Daylight Without Glare, Keeps Interiors Cooler



**REDUCES GLARE**—eliminates eye-strain and employee fatigue.

**RETARDS SUN HEAT**—keeps workers comfortable on their jobs.

**RENDERS SAVINGS**—eliminates shades or painting of glass.

Frosted AKLO glass reduces glare, protects workers against sun-heat, and eliminates costly shades, or whitewashing of glass. In windows and skylights, it creates better working conditions and produces direct savings in plant maintenance.

By providing glareless light, it reduces product spoilage, increases worker safety, decreases errors, speeds production.

Its heat-absorbing properties reduce solar heat entering a building by as much as 47.9%, making employees feel better and work better. In air conditioned plants, operating costs are substantially reduced.

AKLO is manufactured by Blue Ridge Glass Corporation, Kingsport, Tenn., and sold by Libbey-Owens-Ford through leading glass distributors. It is available in hammered and ribbed patterns, both wired and unwired. For information, write Blue Ridge Sales Division, Room 1277, Libbey-Owens-Ford Glass Co., Toledo, O.

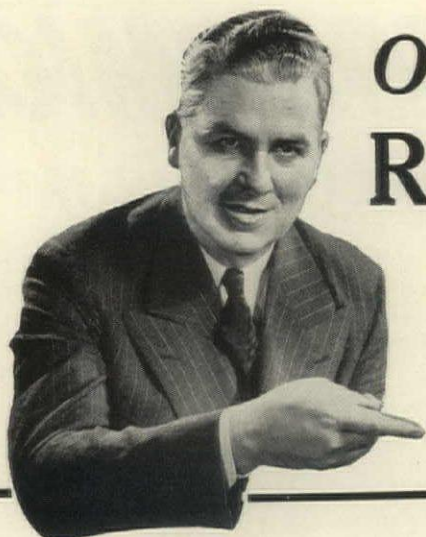


## BLUE RIDGE AKLO GLASS

Heat-Absorbing • Glare-Reducing • Figured and Wire Glass







## *Of Course I'm Specifying* **REZO FLUSH DOORS**

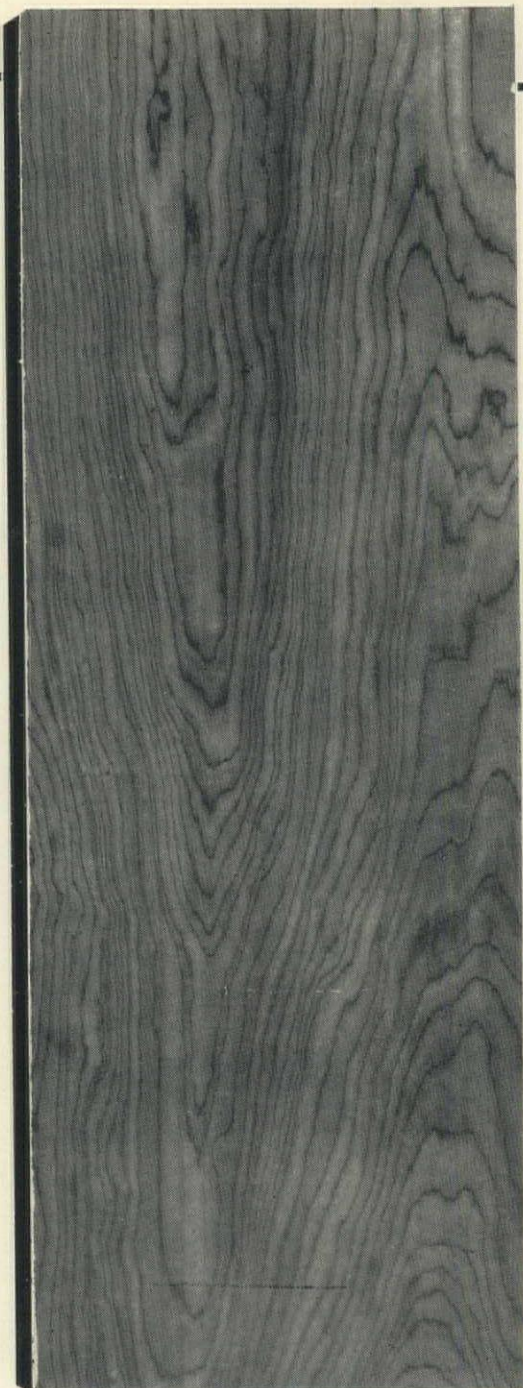
**T**ODAY it's smart business economy to specify Rezo hollow ceil flush doors. Easier, more economical to paint . . . no time-wasting, paint-wasting panels. Stronger, yet lighter . . . costs less to hang than ordinary panel doors. Savings on hardware, hanging, fitting, sanding and finishing time enable them to be installed into even the most modest homes and buildings.

There is a specific reason behind every feature of the Rezo Flush Door, based on years of extensive study, countless experiments and experience. Special patented construction of Rezo Flush Doors providing for constant air circulation throughout the full length and width of the door is your guarantee against swelling, shrinking, sagging or warping.

The interlocking grid core of the Rezo Flush Door, carefully mortised and framed together, overlaid with resin-glued plywood, gives it unsurpassed strength and rigidity.

Modern smooth surfaces enhance any style of architecture. The carefully selected, beautifully grained woods of Rezo Flush Doors may be routed, striped, sandblasted, inlaid or tooled to offer a wide field for creative effort in designing. All woods . . . birch, oak, gum, walnut, mahogany, etc., are available for exterior surfaces.

The unique Rezo construction has unlimited possibilities for all types of special and custom-built doors. This type of door has proven itself ideal for exterior or interior use—cupboard doors—fixed and moveable partitions—accordion doors—locker doors—fire-resisting and sound-resisting doors—panel work, etc. Send today for further information about the Rezo Flush Door or consult Sweet's Catalog.



# **Paine Lumber Co., Ltd.**

Oshkosh, Wisconsin



# EFFICIENT AND ECONOMICAL

## ... WITH G-E MAZDA H MERCURY LAMPS

### Consider These Advantages

- 1. MORE LIGHT PER OUTLET.** High lighting levels obtainable on fewer outlets.
- 2. MORE LIGHT PER DOLLAR.** Almost twice as many lumens per watt as filament lamps.
- 3. COOL.** One third as much radiant heat per footcandle as filament lamps. And blue-green light is psychologically cool.
- 4. INEXPENSIVE TO INSTALL.** Luminaires easy to handle, assemble and install.
- 5. COMBINE WELL WITH FILAMENT LAMPS.** Mercury and filament lamps in combination that give the effect of daylight.
- 6. LOW MAINTENANCE COST.** Long life and high lumen output mean economy in servicing. Ruggedly built to withstand normal vibration.

### Prices Reduced September 1st

In hundreds of factories G-E MAZDA mercury lamps are the most efficient and economical solution to the problem of

high-bay and medium-bay lighting. Today as the result of price reductions effective September 1, 1942, they cost less than ever. The 400-watt lamp is reduced from \$11 to \$9.50; The 3000-watt from \$45 to \$40.

### Where They Are Being Used

The A-H1 (400 watts) may be used in industrial interiors with high or medium-high ceilings. The A-H9 lamp (3000 watts) is recommended only for mounting heights of 40' and higher. Common mercury installations include foundries, forge, tool, and machine shops, metal-stamping mills, steel mills, paper mills, glass factories, rolling mills, and assembly lines.

If you have an industrial lighting problem that can be solved with mercury lamps—or any other lamps—G-E engineers will be glad to help you. See your G-E lamp supplier!



**FREE** ... new 24-page illustrated booklet, "G-E MAZDA H Lamps," giving essential facts about mercury lighting. Write General Electric, Dept. 166-AF-L, Nela Park, Cleveland, Ohio.

### INSTALLATION DATA

Lamps.....	A-H1
Area lighted.....	22,000 sq. ft.
Footcandles (maintained) 60	
Mounting height.....	32'
Spacing.....	10' x 10' centers
Watts per sq. ft.....	4.4

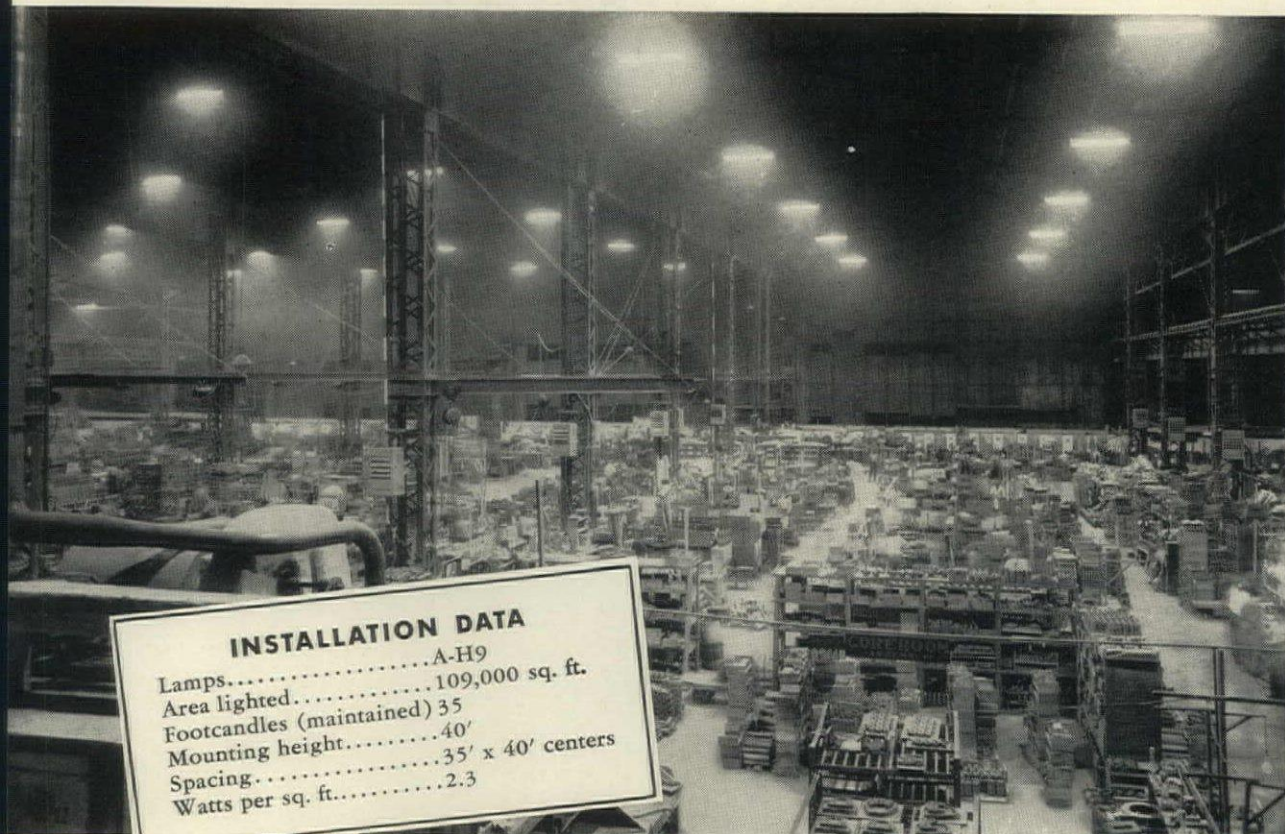
Tool manufacturing plant, lighted with 400-watt G-E MAZDA H lamps. Note illumination of ceiling as well as working planes, providing improved eye comfort.

## G-E MAZDA LAMPS

MADE TO STAY BRIGHTER LONGER



# LIGHTING FOR INDUSTRY



## INSTALLATION DATA

Lamps.....	A-H9
Area lighted.....	109,000 sq. ft.
Footcandles (maintained).....	35
Mounting height.....	40'
Spacing.....	35' x 40' centers
Watts per sq. ft.....	2.3

*Relighting of this large foundry with 3000-watt G-E MAZDA H lamps raised level of general lighting to 35 footcandles. Disconnecting device permits lowering of fixtures to floor for easy maintenance.*

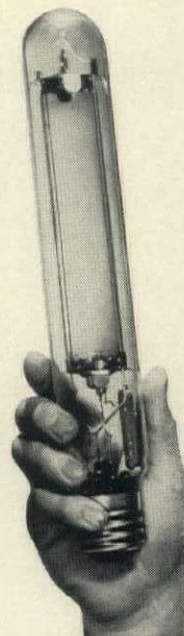
## ESSENTIAL DATA

Average lamp watts.	A-H1 . . .	A-H9
Bulb diameter.	400 . . .	3000
Base . . . . .	2" . . .	1-3/16"
	Mogul. . .	Single Contact
		Terminals.
Average initial lumens . . . . .	16,000* . . .	120,000*
Lumens per watt (lamp only) . . . . .	40* . . .	40*
Rated average life . . . . .	3000 . . .	2000
Over-all length (including terminals) . . . . .	13" . . .	54 7/8"
Length of light source . . . . .	6" . . .	48"
Operating position . . . . .	Base up** . . .	Any
List Price . . . . .	\$9.50 . . .	\$40.00

\*At end of 100 hours operation.

\*\*If lamp is to be operated base down, use B-H1 lamp. Except for operating position, essential data is same as for A-H1 lamp. For both A-H1 and B-H1 lamps, operating position must be within 10 degrees of vertical.

*General Electric makes a complete line of lamps for every industrial use—fluorescent, mercury, and incandescent, as well as lamps for special applications. See your G-E lamp supplier.*



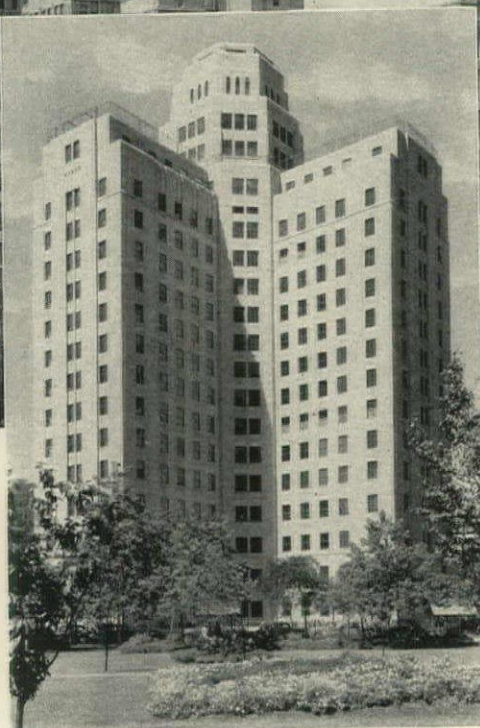
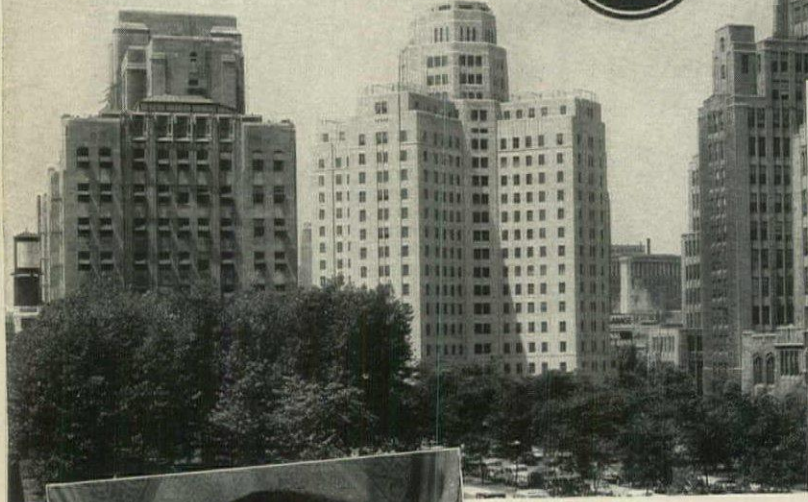
**ABOVE:** G-E MAZDA A-H1 lamp, 400 watts.

**RIGHT:** G-E MAZDA A-H9 lamp, 3000 watts.

# GENERAL ELECTRIC



# PRATT & LAMBERT PAINT AND VARNISH



(Above) Panorama, Northwestern University campus. (Right) Wesley Memorial Hospital. (Left) Lobby. (Center) Solarium. (Bottom) Reception Room.

*Photos, Chicago Architectural Photog. Co.*

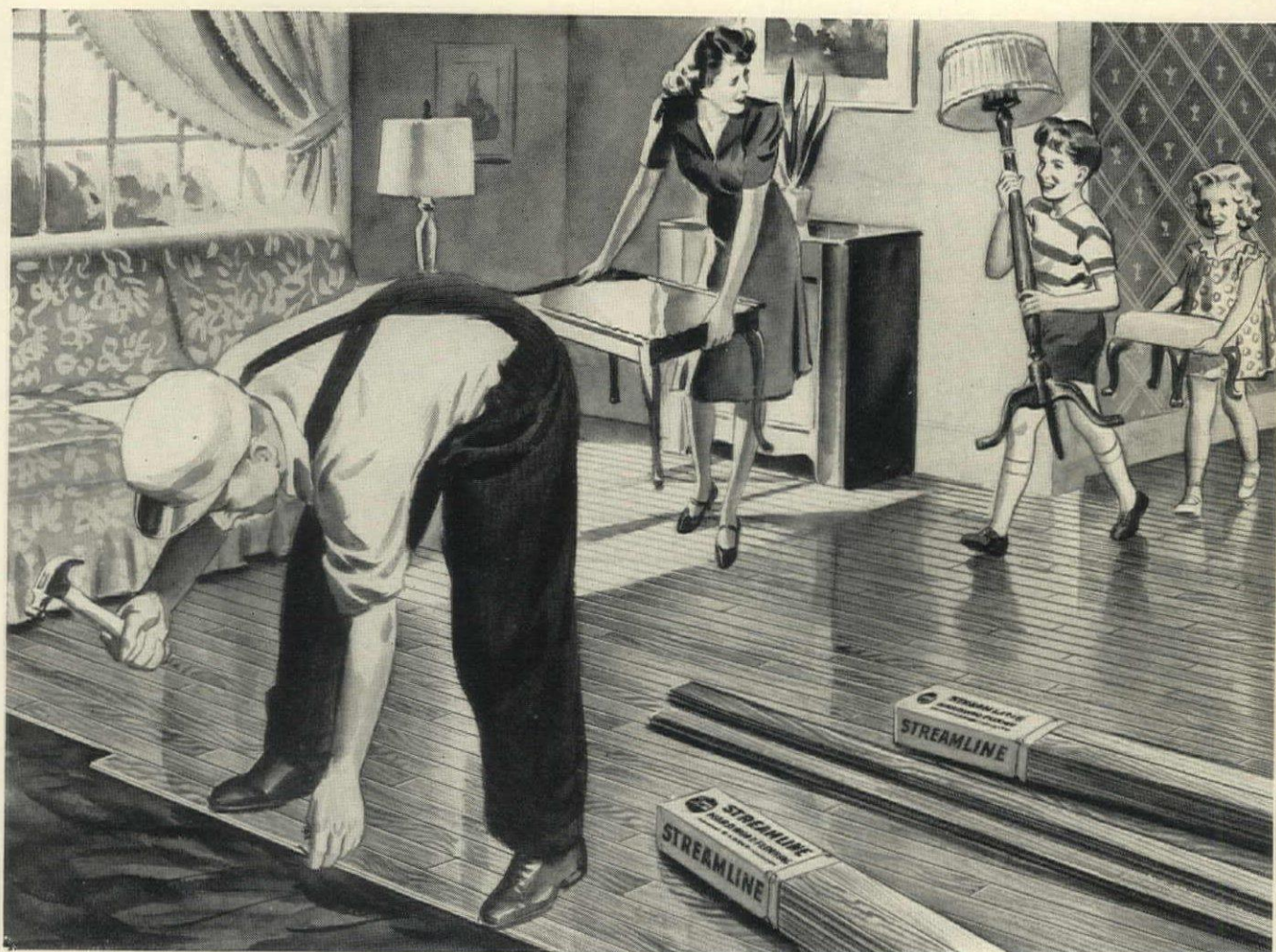


WESLEY MEMORIAL HOSPITAL, CHICAGO  
THIELBAR & FUGARD, Architects, Chicago. GEO. A. FULLER CO.,  
General Contractor, Chicago. J. B. NOELLE CO., Painting Contractor,  
Chicago. WEST WOODWORKING CO., Cabinet Contractor, Chicago.

APPROPRIATELY christened "A Cathedral of Healing", the new, magnificent 21-story Wesley Memorial Hospital, affiliated with Northwestern University Medical School, is dedicated to scientific comfort for the suffering. Its main section, double "Y"-shaped, so every room is an outside room, contains 16 stories, above which a five-story tower projects. Each floor has a separate color scheme; also each room on a floor. Graduations in color for the rooms were measured according to the degree of natural outside light. South exposures are tinted in cool greens or blues, and north exposures in bright, warm colors, such as rose and peach. Pratt & Lambert Paint and Varnish thus serve a decorative and utilitarian end in this beautiful structure. How may the Pratt & Lambert Architectural Service Department aid you?

PRATT & LAMBERT-INC., Paint & Varnish Makers  
NEW YORK : BUFFALO : CHICAGO : FORT ERIE, ONTARIO





## Flooring Especially Designed for Remodeling

### Prefinished Strips Are Laid Right Over Old Floors

Home owners welcome the use of Bruce Streamline Flooring for modernizing old floors. They have learned from our national advertising how the  $\frac{3}{8}$ " or  $\frac{1}{2}$ " strips can be laid right over old floors without the mess, smell and inconvenience of sanding and finishing floors in the home. When it's down, it's done—ready for instant use.

#### Factory-Finished

Uniformly applied by special machines at the Bruce Plant, the penetrating seal finish enters the pores of the wood providing lasting beauty that resists scratching and marring. And so easy to keep clean. The

famous Bruce "Scratch-Test" Finish is used exclusively on Streamline Flooring.

#### Low in Cost

The cost of Streamline Flooring is no more, often less, than that of ordinary flooring finished after it's laid. Jobs are completed quickly and the owner gets a better floor.

#### No Shortages on Streamline

Most lumber dealers have Streamline in stock. There are no priorities or restrictions on its use for permissible repair, remodeling and new construction. Jobs can be started immediately. Write for complete details. Use the coupon.

*Watch for advertising on Bruce Streamline Flooring in The Saturday Evening Post, American Home, Better Homes & Gardens, House Beautiful, House & Garden.*

**E. L. BRUCE CO., 1636 Thomas Street, Memphis, Tenn.**



# STREAMLINE

Trade-Mark Reg. U. S. Pat. Off.

*Factory-Finished*

## FLOORING

FLOOR FINISHES • TERMINIX • LUMBER PRODUCTS

E. L. BRUCE CO., 1636 Thomas St., Memphis, Tenn.  
Gentlemen: Please send full details about Bruce Streamline Flooring.

Name.....

Address.....

City.....State.....



# Wartime ways to use

# "Pittsburgh" Glass!



## PENNVERNON WINDOW GLASS

Long famous for its good looks, the good vision it affords, and its reasonable cost, this excellent window glass is unusually suitable for glazing defense homes of either individual or multiple-unit types. Also being widely used in designing war factories.



## PITTCO STORE FRONT PRODUCTS

These quality products, including selected Pittco Metal shapes, are ready to serve you. Ideal for dressing up retail stores in defense areas where trade is stimulated by near-by war activity. Only restrictions: front must cost less than \$5,000, involve the use of no critical materials.



## CARRARA SHOWER ENCLOSURES

New, prefabricated shower enclosures of Tempered Carrara Glass save space, construction time and critical materials in building Victory Homes. No metal involved in installation. Complete unit ready for immediate assembly on the job. Good looking, practical and economical. Eight attractive colors.

**D**ETAILED information on any or all of the "Pittsburgh" Products mentioned here will be sent you promptly upon request. And if we can assist you toward a solution of any problems involving the use, application or installation of flat glass, we invite you to call upon us without hesitation. Address Pittsburgh Plate Glass Company, 2102-2 Grant Building, Pittsburgh, Pa.

**"PITTSBURGH"**  
*stands for Quality Glass and Paint*

# PITTSBURGH PLATE GLASS COMPANY



# 25 DAYS SAVED

## for the U.S. Government

### THIS SPACE WAS FOR A PICTURE OF THE JOB

... But we can't show a picture.  
We can't tell where the job is.  
We can say that—

- ▶ It's a disposal plant at an Army Air Base.
- ▶ It's a 100% Atlas High-Early cement job.
- ▶ It's another example of fast wartime building under pressure of time—with Atlas High-Early cement.

THE contractor on this particular disposal plant job turned it over to Uncle Sam nearly a month ahead of time, thanks to Atlas High-Early cement.

He saved time because he could remove his forms sooner than with normal portland cement. He speeded up his concreting all along the line. And he was able on first pours to get footings in before

water in lower part of the grade stopped concrete work.

Costs were lower, too, on this job, as they often are when Atlas High-Early cement is used. There was approximately a 15% saving in form costs.

Atlas High-Early cement is one answer for SPEED with economy—in new building, converting, or repairing—in summer or winter.

On your next "Rush" contract, big or little, use Atlas High-Early cement. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, N. Y. C.

OFFICES: New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, St. Louis, Kansas City, Des Moines, Birmingham, Waco.


AF-H-47

## ATLAS HIGH-EARLY CEMENT

A UNIVERSAL ATLAS PRODUCT





A black and white photograph of a room. In the foreground, a light-colored upholstered armchair with dark wood trim is positioned on the left. To the right, a large window with a dark frame looks out onto a landscape with a baseball field and hills. A small potted plant sits on a table in front of the window. A large, dark, decorative sign is overlaid on the left side of the image, containing text.

*No matter  
what the design... the*

**194X HOME**

*will have*

**ANDERSEN  
WOOD WINDOW  
UNITS**

**YES, IN 194X** when the war is over, and homes are being designed and built again, Andersen Wood Window Units will still be the architect's favorite. No matter what the design, no matter what the style of architecture, no matter what the ingenious innovations, the 194X home will be a better designed home, a more livable home, a more enjoyable home—because of Andersen Lifetime Wood Window Units.

Modern home design today demands more and more fenestration, compared to wall space. In 194X, we predict that fenestration

will be even more important. For, by greater use of window areas, the modern architect will solve the problem of bringing the beauty of the outdoors to the comfort of the indoors.

Andersen has produced and promoted Lifetime Window Units as a permanent functional part of a home for many years. In 194X Andersen will still be solving problems in modern fenestration — with Andersen Lifetime Wood Window Units. See Sweet's Architectural Catalog, or write, for details to address below.

*Andersen Corporation*

BAYPORT, MINNESOTA

**ONLY THE RICH CAN . .**

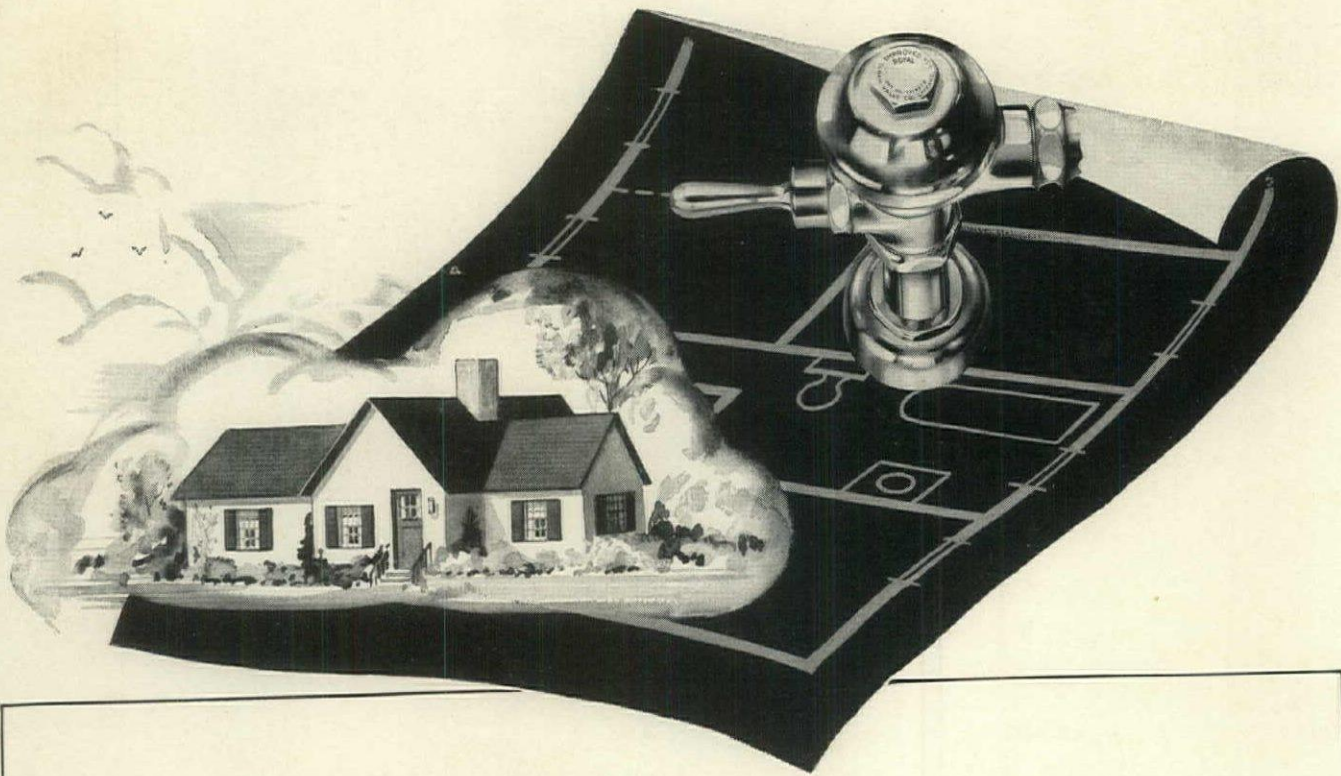




FOR TOMORROW'S HOME  
*Buy*  
BONDS TODAY

AFFORD POOR WINDOWS





## START PLANNING NOW FOR SLOAN-EQUIPPED HOMES

Through these dark clouds of War, many of us envision our dream-house of tomorrow, and in it we see many new ideas and innovations—a new way of life itself. Sloan engineers are going to be responsible for some of this change, because even now they say—

*"Heretofore Sloan Flush Valves were specified for only luxury homes, large apartments, hotels, hospitals, schools, institutions and other types of large buildings; but here is our promise to you today—*

*After the War there will be Sloan Flush Valves with all their well-known advantages for even modest homes and inexpensive walk-up apartments."*

For 36 years Sloan Flush Valves have proved their trouble-free durability with astonishingly low maintenance cost. They protect health by preventing back-syphonage—They save water—They are quiet—They are the accepted standard-of-excellence by which all other flush valves are judged.

So start planning now for Sloan-equipped homes. With Sloan Flush Valves you provide home owners with the ultimate in convenience, health and economy. Remember: there are more Sloan Flush Valves sold than all other makes combined.

### SLOAN VALVE COMPANY

4300 WEST LAKE STREET • CHICAGO











8 Corrosion-resistant metals that offer

# STRENGTH PLUS..

The plus properties of these 8 INCO Nickel Alloys meet a wide variety of fabrication and service requirements...

Strength combined with corrosion resistance, as you know, have long been associated with Monel. But sometimes extra hardness, heat resistance, resilience, or some additional properties are needed. These and other *plus* characteristics are offered by other INCO Nickel Alloys. Find out more about this useful family of metals. Write for the new booklet, "Individualized INCO Nickel Alloys."

**THE INTERNATIONAL NICKEL COMPANY, INC.**  
67 Wall Street  
New York, N. Y.

plus <b>CORROSION RESISTANCE</b> ... together with strength, hardness, toughness —		<b>MONEL</b>
plus <b>EXTRA HARDNESS</b> ... comparable to heat-treated alloy steel; heat-treatable, non-magnetic —		<b>"K" MONEL</b>
plus <b>HEAT RESISTANCE</b> ... with retention of high degree of strength. Resists oxidation, high corrosion resistance —		<b>INCONEL</b>
plus <b>MACHINABILITY and EXTRA HARDNESS</b> ... free cutting, heat-treatable, non-magnetic —		<b>"KR" MONEL</b>
plus <b>RESILIENCE</b> ... heat-treatable, for exceptional spring properties, magnetic, good electrical conductivity —		<b>"Z" NICKEL</b>
plus <b>MACHINABILITY</b> ... for high speed production in automatic screw machines —		<b>"R" MONEL</b>
plus <b>HARDNESS in CASTINGS</b> ... anti-seizing and non-galling —		<b>"S" MONEL</b>
plus <b>NON-CONTAMINATION</b> ... protects product purity; offers good electrical conductivity —		<b>NICKEL</b>

## ★ FIRST THINGS FIRST ★

With the Nation at war, supplies of Monel, Nickel and Nickel Alloys are needed for our armed forces. Although all efforts must now be aimed toward victory, The International Nickel Company will continue to report developments for the information of metal users who are concerned with the war efforts of today and the peace-time progress of the future.

SOME TYPICAL MECHANICAL PROPERTIES

INCO ALLOY	CONDITION	Tensile Strength 1000 psi.	Yield Strength 0.2% Offset 1000 psi.	Elongation in 2 in. per cent	Hardness Brinell 3000 kg.	Toughness Standard Izod-ft.-lbs.
MONEL.....	Cold-drawn, as drawn.....	85-125	60-120	35-15	160-250	115-75
"K" MONEL.....	Cold-drawn, heat-treated....	140-170	100-130	30-15	260-320	26*
INCONEL.....	Cold-drawn, as drawn.....	95-150	70-125	30-15	180-290	100-70
"KR" MONEL.....	Cold-drawn, heat-treated....	140-170	100-130	30-15	260-320	..
"Z" NICKEL.....	Cold-drawn, heat-treated....	160-190	120-150	20-7	300-380	25
"R" MONEL.....	Cold-drawn, as drawn.....	80-115	50-100	35-15	150-230	99
"S" MONEL.....	Castings as cast.....	110-145	80-115	4-1	275-350*	9-3
NICKEL.....	Cold-drawn, as drawn.....	65-115	40-90	35-15	125-230	120

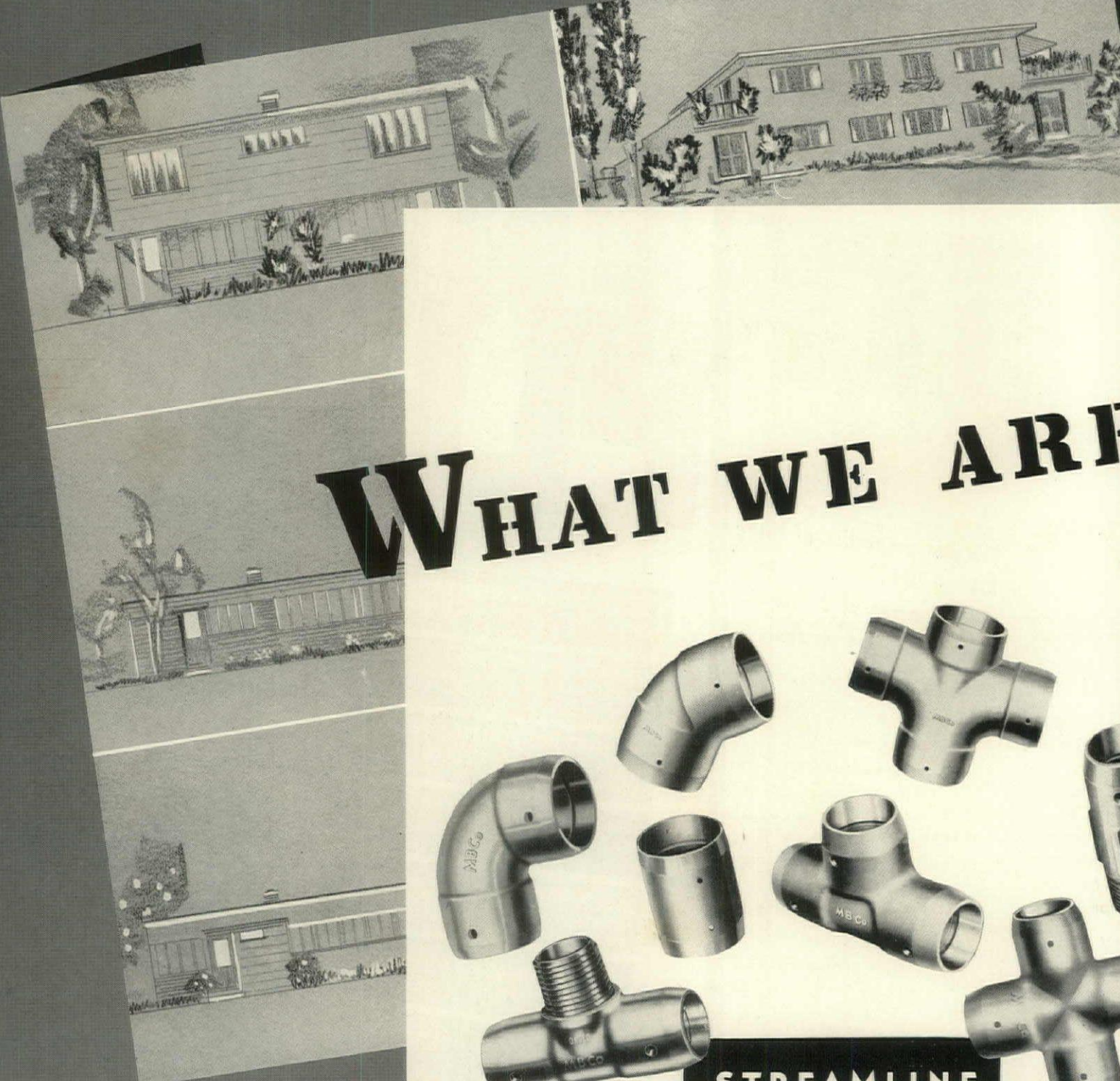
\*Specimen completely fractured.

## INCO NICKEL ALLOYS

MONEL • "K" MONEL • "S" MONEL • "R" MONEL • "KR" MONEL • INCONEL • NICKEL • "Z" NICKEL

Sheet ... Strip ... Rod ... Tubing ... Wire ... Castings





**WHAT WE ARE**



**STREAMLINE**  
PIPE AND FITTINGS DIVISION  
**MUELLER BRASS CO.**  
PORT HURON, MICHIGAN

**STREAMLINE**

TRADE MARK REG. U. S. PAT. OFFICE

MUELLER BRASS CO.—PORT HURON MICH.—STREAMLINE—HARD—GOVT—TYPE M—MUELLER BRASS CO—PORT HURON MICH—STREAMLINE—HARD—GOVT—



# ...IGHTING FOR ★ ★

...ace... security...  
...d the dream of a home to come!

...n all is said and done and after we have waded down  
...all the political and economic reasons for war be-  
...he nations—all the grasping for territory of the "have  
...ountries—and the desire of the "have" countries to  
...what they hold in trade and territory and the at-  
...of greedy individuals to profit by the holocaust that  
...veloped the world—the one reason above all others  
...Mr. Ordinary Citizen fights and dies is for his home,  
...the hope of one, and all that it means to him.

...this struggle is over, small homes without number  
...be built in America and throughout the world. When  
...homes are built, they will be compact, quality homes  
...odels of efficiency and convenience that will surprise  
...world—and at a cost well within the means of the man  
...oderate income.

An efficient plumbing and heating system is the most vitally  
important thing in any building—the very arteries of the  
livable, comfortable home. Since STREAMLINE copper pipe  
connected with STREAMLINE fittings embodies all the qual-  
ities of efficiency, long life and compactness, you will find  
them installed in these homes of the future as they have  
been for many years in the past. For STREAMLINE is as  
modern as tomorrow—there are and will be substitutes, but  
nothing can take its place.

STREAMLINE products are now in the service of our country  
for many purposes. On the sea, under the sea, on the  
land and in the air. When peace returns to the world, the  
plumbers and steamfitters of America will again install them  
in the home to protect the health of the nation as they are  
now protecting the health of our boys in the armed forces.



...COPPER PIPE AND SOLDER FITTINGS

Winners of the Navy "E"  
Award for Excellence and  
Timely Performance of  
Naval Ordnance Contracts



# PROTECTING The House of 194X...



Regardless of its design,  
Flintkote building materials will  
safeguard this dwelling against  
fire, heat, cold, weather, and wear.

The house of 194X, like the house of 1915,  
will need protection against the elements.  
And as in the case of that older house,  
Flintkote will furnish it.

Flintkote building materials are old yet  
new. *Old*, in that they are thoroughly  
reliable, *time-tested* building materials.  
*New*, because for a quarter-century they  
have kept pace with...and frequently out-  
distanced...*new* trends and *modern* design.

In planning the house of 194X, safe-  
guard the *comfort* of the occupant, the  
*investment* of the owner. Life long protec-  
tion is assured for *both* when you specify  
Flintkote building materials.



## FLINTKOTE ADVANTAGES from roof to basement:

### SHINGLES and SIDINGS

Asphalt, mineral surfaced  
Asbestos-Cement

### ASPHALT COATINGS

Waterproofing • Dampproofing

### INSULATION

Board, lath, sheathing • Rock Wool

### ROLL AND BUILT-UP ROOFINGS

### WALLBOARDS

Insulating tile and plank  
HardBoard

### SOUND DEADENING FELTS BUILDING PAPERS

Products of the same high quality are sold by the Beckman-Dawson Roof-  
ing Company and Richardson Roofing, affiliates of The Flintkote Company.

The **FLINTKOTE** Company  
30 ROCKEFELLER PLAZA, NEW YORK

Atlanta • Boston • East Rutherford • Chicago Heights • Detroit • New Orleans • Waco • Los Angeles





## CONCRETE SAVES WITHOUT SACRIFICING ESSENTIALS IN WAR CONSTRUCTION

In war construction, where hazards and heavy service make rugged, firesafe construction imperative, concrete provides important savings.

**Saving in transportation**, concrete employs local, widely produced materials to a high degree.

**Saving in time** is inherent in the use of *one* material for walls, floors, frames and roofs.

**Saving in critical metals**, concrete at the same time gives a high degree of fire-

safety and structural continuity—prime protective factors.

**Saving in cost**, durable concrete often reduces first cost as well as annual upkeep.

Technical assistance on concrete problems is available to designers and builders of all types of war construction. See Sweet's 4/45.

### PORTLAND CEMENT ASSOCIATION

Dept. 9-7, 33 W. Grand Ave., Chicago, Ill.

### BUY WAR SAVINGS STAMPS AND BONDS

Among many concrete airport structures built or under construction is the administration building, Municipal Airport, Jacksonville, Florida. Jefferson D. Powell, architect; Walter G. Daniel, assistant city engineer.





TO ALL ARCHITECTS, CONTRACTORS, AND CONSTRUCTORS

# Barclay Chevron

A NEW MAXIMUM-DURABILITY, LOW-COST, PLASTIC-

*SPECIFY* this newest wall  
board for walls and ceilings in



WAR HOUSING  
CONVERSIONS  
NEW CONSTRUCTION  
BARRACKS  
SHOWER STALLS  
KITCHENS  
BATHS  
FACTORIES  
CANTEENS  
LABORATORIES  
TRUCKS AND AMBULANCES  
SECTIONAL UNITS  
HOSPITALS  
DORMITORIES  
LIBERTY SHIPS

**HERE** is why you will name  
**BARCLAY CHEVRON BOARD**  
in your specifications:

**NEW AND DIFFERENT**—Barclay Chevron Board is a new product for war-service needs.

**LOW PRICED**—Barclay Chevron Board costs much less than other wall boards of equal quality.

**PLASTIC COATED**—Chevron Board has a smooth wear-resistant finish bonded to treated panels.

**TESTED**—For 3 years Chevron Board has been tested under on-the-job-conditions.

**NOW IN USE**—We now supply it for ship interiors, housing, military installations.

**LONG-WEARING**—This new product really wears a long, long time! It stands up.

**HANDSOME**—Despite its low cost, Chevron Board is one of the best-looking boards you've seen.

**STURDY**—Chevron Board does not warp, chip, crack, craze or peel on the job.

**BARCLAY MANUFAC**



WORKING ON GOVERNMENT SPECIFICATIONS

# Announces Board

COATED WALL BOARD



**SPEEDY TO APPLY**—Goes up in a hurry over old or new walls and ceilings.

**EASY TO INSTALL**—Simply nail, screw, or cement to wall. Untrained workers do it easily!

**WIDE COLOR RANGE**—Get it in many colors.

**VARIED DESIGNS**—Unscored, tile-board, or streamlined designs in handsome colors.

**WAREHOUSE STOCKS**—We ship promptly from stocks in our New York warehouse.

**LARGE SIZES**—Standard sizes up to 4 x 8. Special sizes, colors, on quantity orders.

**IMPORTANT NOTE**—Barclay technicians will prepare special finishes of all types, to fit your special needs.

**BARCLAY**  
PLASTIC-COATED PANELS

## SEND FOR CHEVRON BOARD SAMPLE

We want you to see Barclay Chevron Board, test it at your own desk at no cost to you. The coupon below brings you free sample. Mail the coupon today.

Barclay Mfg. Co., Inc.; Dept. AF-9,  
385 Gerard Ave., Bronx, N. Y.

Send me by return mail my free sample of  
Barclay's new Chevron Board.

NAME \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

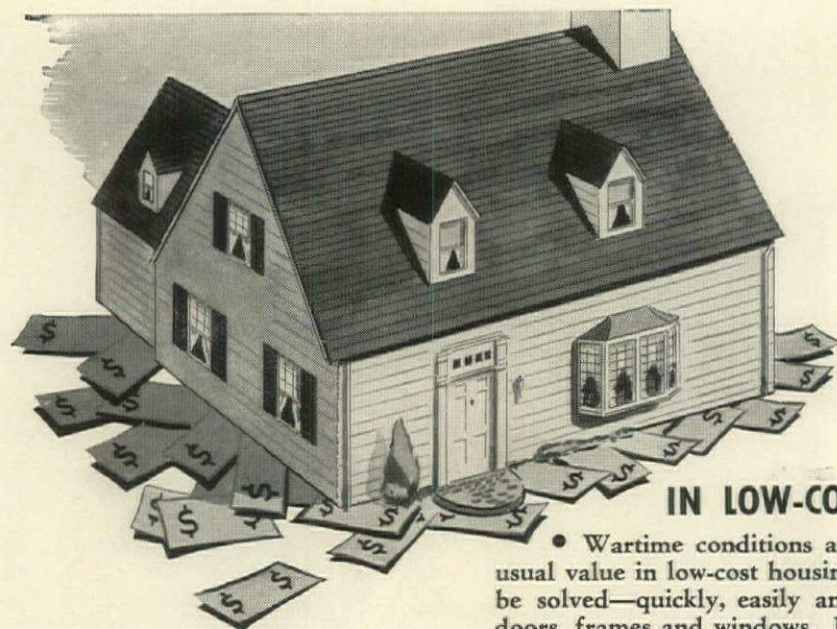
CITY \_\_\_\_\_ STATE \_\_\_\_\_

**GET THIS  
FREE SAMPLE**  
FOR YOUR PERMANENT FILE



**TURING CO., INC.**

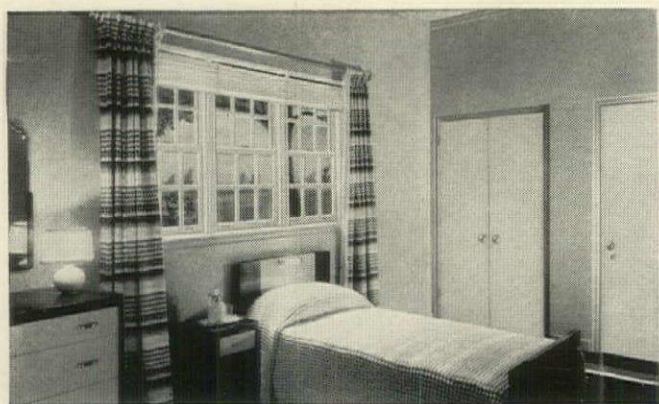




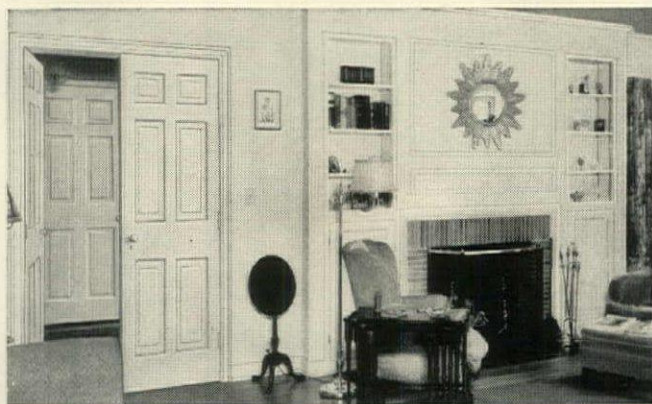
**MORE**  
*for*  
*the money—*

## IN LOW-COST HOUSING AND REMODELING!

• Wartime conditions are a challenge to ingenuity in providing unusual value in low-cost housing and remodeling. Yet, many a problem can be solved—quickly, easily and satisfactorily—with Ponderosa Pine stock doors, frames and windows. For Ponderosa Pine not only offers a definite means of making houses more livable, more functionally desirable, but its stock designs help to reduce building costs as well. Here are just a few of the ways in which woodwork of Ponderosa Pine can aid you:



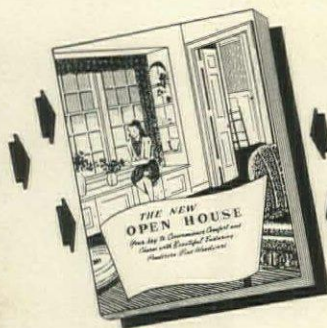
**GETTING THE MOST OUT OF SMALL SPACE**—Every inch of space is useful in this interesting bedroom of a small defense home. The grouping of stock Ponderosa Pine windows provides plenty of light and air—makes the room look larger. Notice the attractive modern doors of Ponderosa Pine—especially the double closet doors. Ponderosa Pine doors, frames and windows require the very minimum of critical metal.



**FUEL CONSERVATION**—In the photograph above, well-placed doors of Ponderosa Pine permit shutting off unused rooms to save fuel—or help to provide greater privacy for housing defense workers. These graceful doors will fit well and function with ease due to the precision-made stock frames of Ponderosa Pine. Ponderosa Pine provides durable doors, frames and windows—gives great value in every job.



**GREATER UTILITY—AT LOW COST**—Here's an ingenious, space-saving arrangement that can be used effectively in small defense homes, where privacy is desired and space is limited—made possible through the use of folding doors of Ponderosa Pine. Notice, too, the graceful, architecturally correct entrance. Because it is so durable, Ponderosa Pine creates homes that *stay* charming. Ponderosa Pine stock doors, frames and windows are low in cost—readily available—suitable for all types of construction.



## *get* THE NEW OPEN HOUSE!

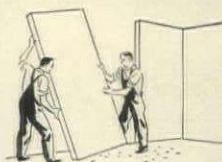
You will find this book an indispensable aid. It is full of ideas for making homes more attractive and more livable under present conditions in both new construction and remodeling.

A free copy is yours for the asking. Write Ponderosa Pine Woodwork, Dept. XAF-9, 111 W. Washington Street, Chicago, Illinois.

**Ponderosa Pine**  
**WOODWORK**



# Kimsul\* Speeds Prefabricated Construction!



Of importance to wartime builders is this recent development: KIMSUL\*, flexible blanket insulation, is now furnished in new and larger dimensions—up to 4 feet wide, and wider in some specifications, by 250 feet long. Now—KIMSUL is not only one of the most thermally efficient insulations known to science (conductivity is .27 Btu/hr./sq. ft./deg. F./in.—Peebles) but it is now faster-installing than ever before.

## New Giant-Size Blanket Insulates Entire Wall or Floor Unit in ONE Operation

Especially developed for war housing construction, the new giant-size KIMSUL blanket installs with amazing speed and simplicity. Huge blanket of KIMSUL insulation is applied right over the face of framing members—covering entire sections in one simple operation. Sheathing, flooring or interior finish is then attached to framing members directly over KIMSUL. Users report installation time as low as 1,000 square feet in 1½ man hours.



## KIMSUL Saves Every way!

Different from all other insulations, KIMSUL comes in rolls compressed to 1/5th its installed length. As compared with all other insulation, KIMSUL requires only 1/5th as much transportation space, only 1/5th as much storage space, and only 1/5th as much handling. KIMSUL saves every way!

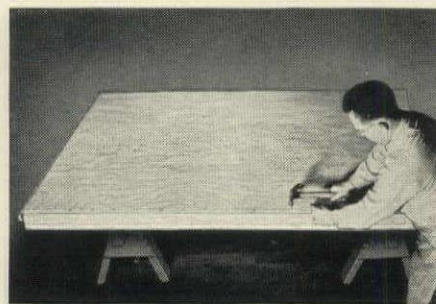
### TYPICAL EXAMPLE WALL UNIT ASSEMBLY



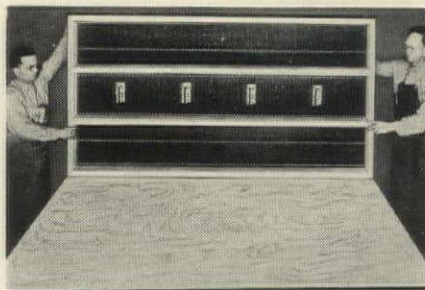
In this picture you see how easily and speedily a 4-foot wide prefabricated wall panel assembly is being covered with the new giant-size blanket of KIMSUL Insulation.



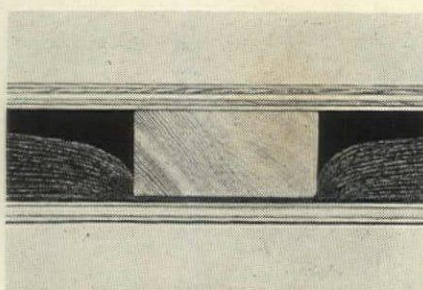
Next, KIMSUL blanket is stapled to framing members. This, too, is a simple, fast operation that results in the neat, snug-fitting insulation job you see in the above photograph.



Exterior sheathing is nailed through KIMSUL blanket to framing members . . . KIMSUL blanket is held firmly under compression between framing members and sheathing. KIMSUL "stays put".



Panel is now ready for delivery to place of erection with KIMSUL protected, permanently secured at all points, and out of the way for installation of piping and wiring.



KIMSUL between the walls—this sectional view shows how KIMSUL Insulation ply construction compresses uniformly between the framing members and the plywood.

## KIMSUL INSULATION

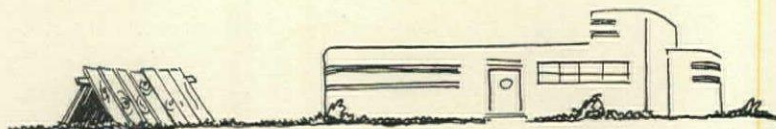
Kimberly-Clark Corp. AF 942  
Established 1872  
Building Insulation Div.  
Neenah, Wisconsin

☐ Send a representative.  
☐ Send free booklet "A NEW AND IMPROVED KIMSUL INSULATION".

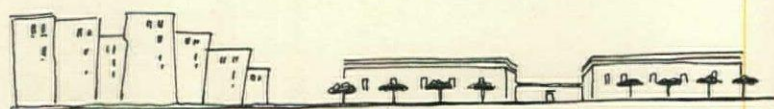
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_

\*KIMSUL (trade mark) means Kimberly-Clark Insulation





Not "shelter" but...Homes



Not "housing" but...Living

The demand for better living can be stimulated. The foundation of what we are all looking forward to after the war—houses and communities that are better planned and better built—can be laid now in the consciousness of Americans.

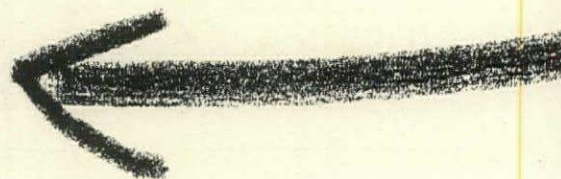
Evidence of this is in the tens of thousands of letters and postcards Revere has received from merchants, farmers, bank clerks, machinists, manufacturers, soldiers, sailors, officers . . . and their wives. More than 35,000 copies of the Revere booklets shown on the opposite page have been sent to every part of the country by Revere, in response to requests from readers of advertising. And each day brings more.

Knowing that the wish for better living is close to the hearts of Americans, Revere will continue to present, through its advertising pages, the concepts of leading architects and designers for tomorrow's homes. For Revere has reason to believe that in this way the public can be helped to understand the benefits of quality building . . . can be made ready and eager for the new contribution of the architect, the builder, the dealer, the manufacturer, the banker, the realtor, in days to come.

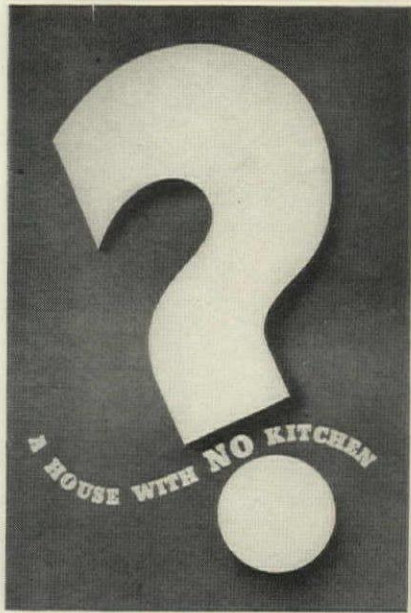
## REVERE COPPER AND BRASS INCORPORATED

*Executive Offices: 230 Park Avenue, New York*

In presenting various conceptions of tomorrow's homes by leading architects and designers, Revere Copper and Brass Incorporated seeks only to stimulate public interest in better housing, confident in the knowledge that the greater use of copper and brass makes any house better to live in, better to own, better to rent or sell. The Revere Technical Advisors are always ready to help with your problems.



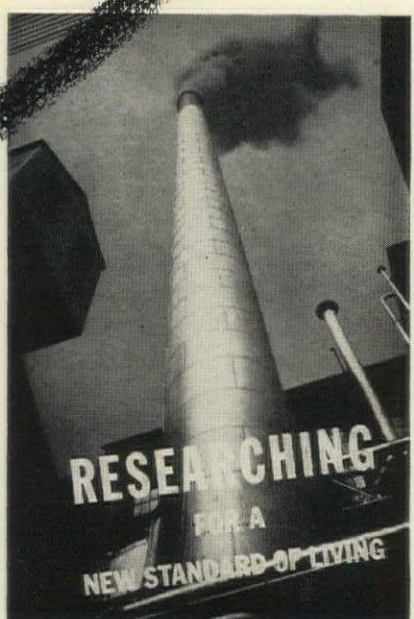
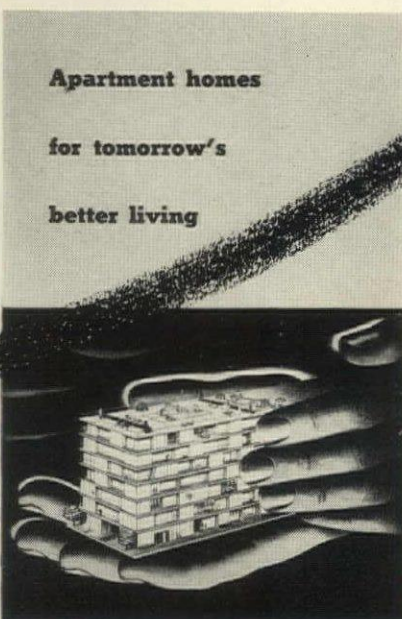
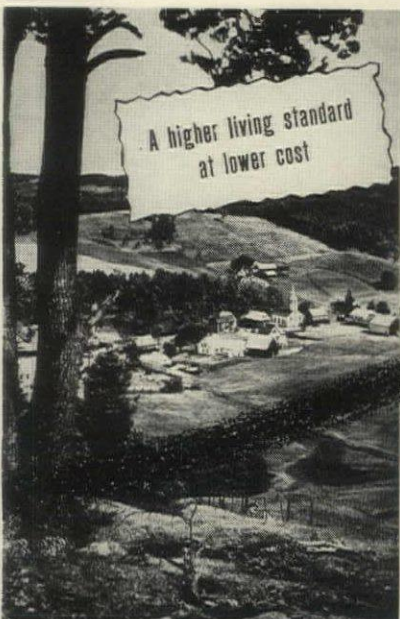
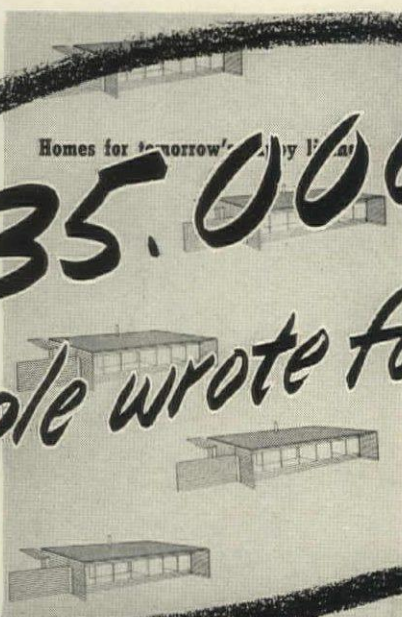




Homes for tomorrow's living

**35,000**

people wrote for them







## UNSHACKLED IMAGINATION *builds*

When one hundred of America's leading designers are invited to dream big dreams—unshackle their imagination—and mold the ideal small home of tomorrow—something inspiring is bound to happen.

Theirs is an unattached assignment. They have freedom of mind, freedom of design, choice of many materials old and new, and if they elect, construction methods geared to advanced engineering.

To the thirty-three designers who accepted the opportunity and to thousands of architects, engineers and builders, to whom their ideas may be an inspiration, The Ruberoid Co. lends its enthusiastic support. For more

than a half century research has proved to be the foundation upon which RU-BER-OID products have, year by year, served more efficiently.

We therefore welcome this type of creative thinking and the possible further adaptation of RU-BER-OID Asphalt and Asbestos-Cement Roofing, Siding and Building Products to meet tomorrow's small home needs.

Catalogs of RU-BER-OID products in current manufacture will be gladly placed in the hands of any member of the Architectural or Building Profession. Write to Dept. AF-9, The Ruberoid Co., 500 Fifth Ave., New York.



# RU-BER-OID

ROOFING AND  
BUILDING PRODUCTS





## A New Light On Increased Production

**Modern Factories Use Pittsburgh "Glorified Light" Paints To Relieve Eye-Strain, Improve Efficiency And Speed Production Of The Night Shift As Well As The Day Crew.**

**T**HREE shifts a day is the rule in America's great war industries—and perfect lighting is the key to top production by night as well as by day. That's why architects are studying lighting as they never did before, and are jealous of any factor that might rob their lighting systems of full efficiency.

To increase illumination *without* glare—hundreds of architects are

turning to Pittsburgh's three "Glorified Light" Paints. Developed in Pittsburgh research laboratories, in collaboration with lighting experts, these custom-made finishes meet all types of factory conditions and often reduce light bills materially.

Pittsburgh has gone further and now offers free to architects and maintenance experts a special "Paint Engineering Service" for the proper

protection of plants and productive equipment.

This service consists of careful examination of each paintable surface by paint specialists and the recommendation of painting procedure, colors and maintenance in a detailed report for your permanent records.

For full information on how to obtain this free survey call a representative of the Pittsburgh Plate Glass Company at the nearest office. Addresses of Pittsburgh Branches are listed in Sweet's catalog. Pittsburgh Plate Glass Company, Paint Division, Pittsburgh, Pennsylvania.

**PITTSBURGH**  **PAINTS**  
WALLHIDE • FLORHIDE • WATERSPAR • SUN-PROOF  
*Smooth as Glass*





FRAGMENTING  
MATERIALS

FRAGMENTING  
MATERIALS

R·P·M

FRAGMENTING  
MATERIALS

R·P·M

R·P·M

ROBERTSON PROTECTED



# A SHOCK ABSORBER

## *under Bombing Attacks*

Robertson Protected Metal (RPM) roofs and sidewalls on industrial buildings throughout the British Isles have an exceptional record of performance during bombing attacks.

Repeated instances may be cited to show that when a detonation bomb lands near a group of buildings, those covered with RPM do not fragment into shrapnel-like missiles, and suffer only relatively slight damage, while those covered with fragmenting materials are stripped of their coverings.

Actually, RPM seems to act as a *shock-absorber* when the bombs come. There are two reasons for this highly desirable characteristic:

1. The sheets themselves have a unique combination of inherent strength, flexibility and resiliency.
2. The sheets are attached to the building framework by a method which provides, in effect, an expansion joint enabling the sheets to move, or "give," under bombing pressure and suction.

Thus, the roof and sidewalls as a whole literally "breathe" under the concussions caused by bomb explosions. The RPM covering gives and takes, which means that it stands a better chance of staying on . . . damage is localized . . . plants are quickly put back to work.

The RPM method of roof and sidewall installation is a QUICK method. It is one of the reasons . . . and there are many others . . . why we say—"What we really make is time."

**H. H. ROBERTSON COMPANY**  
FARMERS BANK BUILDING • • • PITTSBURGH • PA.

### CASE V

—(See Illustration Opposite) English Bombing reported by an eyewitness. "At the (Name of plant deleted) Works there were half a dozen buildings (three covered with RPM, three covered with fragmenting materials). Two bombs fell, one striking at one side of the group and the other at the opposite side, so that the blasts came from two sides of a square. The two blasts stripped the fragmenting materials from three buildings, while those covered with RPM were damaged only a few feet from the point of explosion."

# METAL



H. H. Robertson Co., Farmers Bank Building, Pittsburgh, Pa.

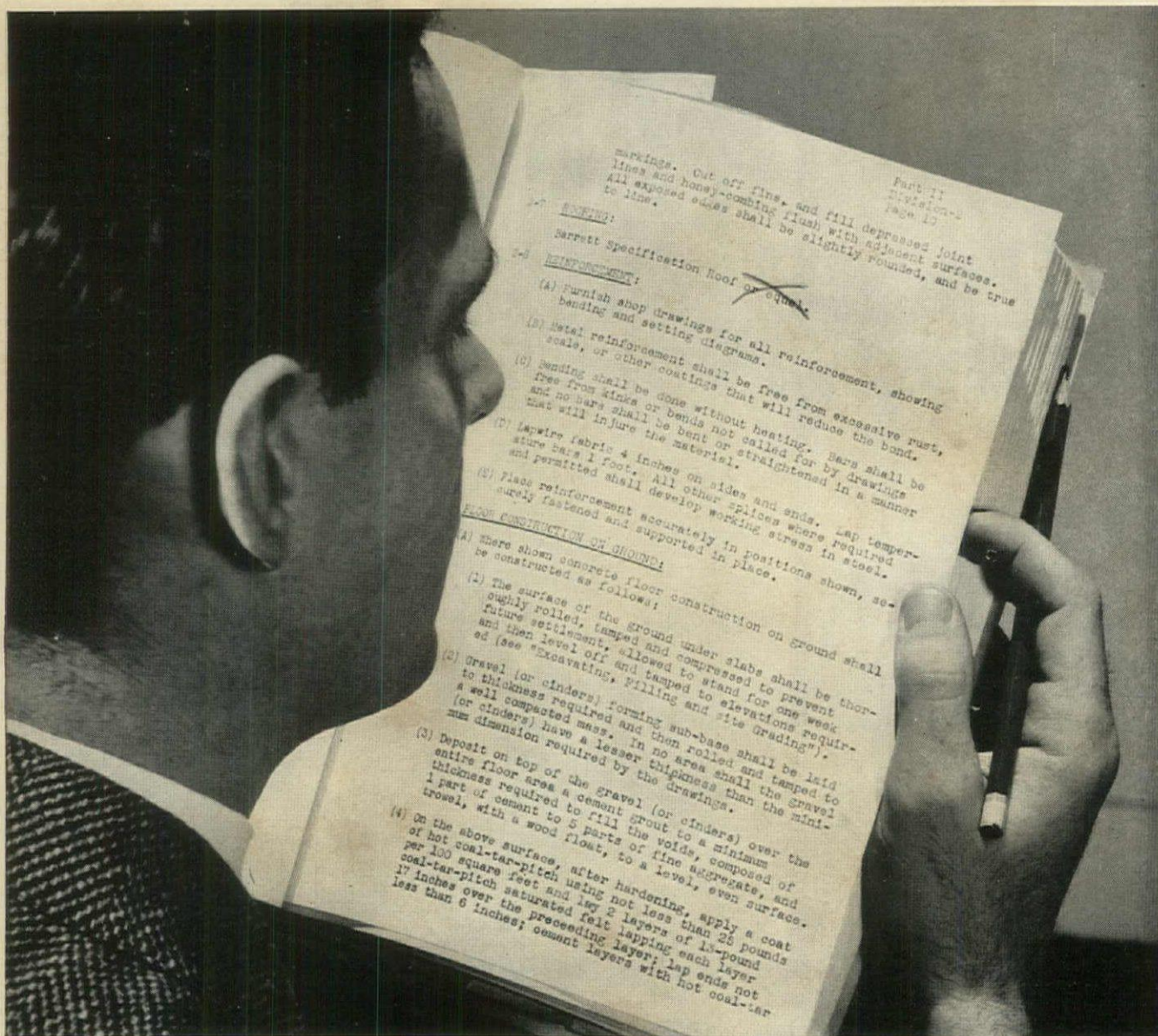
- ( ) Please send me copy of your new book, "Quick is the Word."
- ( ) Please have a Robertson Engineer submit new portfolio covering your Bombing Story.

Name \_\_\_\_\_ Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_





## In Wartime Plant Design . . . YOU CAN'T AFFORD TO GAMBLE ON ROOFS

• In the design and construction of vital war plants, speed is a paramount factor. New and complex problems must be solved *right the first time*, or the production of planes, tanks and guns will be delayed.

In this situation, the significance of three words—Barrett Specification\*Roof—is of vital importance to the architect. For these three words written into the building specification definitely remove the element of chance from roof performance.

They mean that the roof you have specified will be constructed of Barrett Specification coal-tar pitch and felt with a fire-safe gravel or slag wearing surface, that it will be applied according to the Barrett Specification by a Barrett Approved Roofer, a roofing contractor of proved experience, ability and integrity. They mean

also that the roof will carry Fire Underwriters' Class A rating, that it will be bonded against repair and maintenance, and that it will be built to outlast the bonded period—of up to 20 years—by decades.

Three words—Barrett Specification Roof! When it's that simple to protect yourself and your client against roof failure . . . and when it's so important today that you do—why take a chance with "something else"? In war time particularly you can't afford to gamble on roofs!

### THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK

2800 So. Sacramento Ave., Chicago, Ill.

Birmingham, Ala.

... ONE OF AMERICA'S GREAT BASIC BUSINESSES

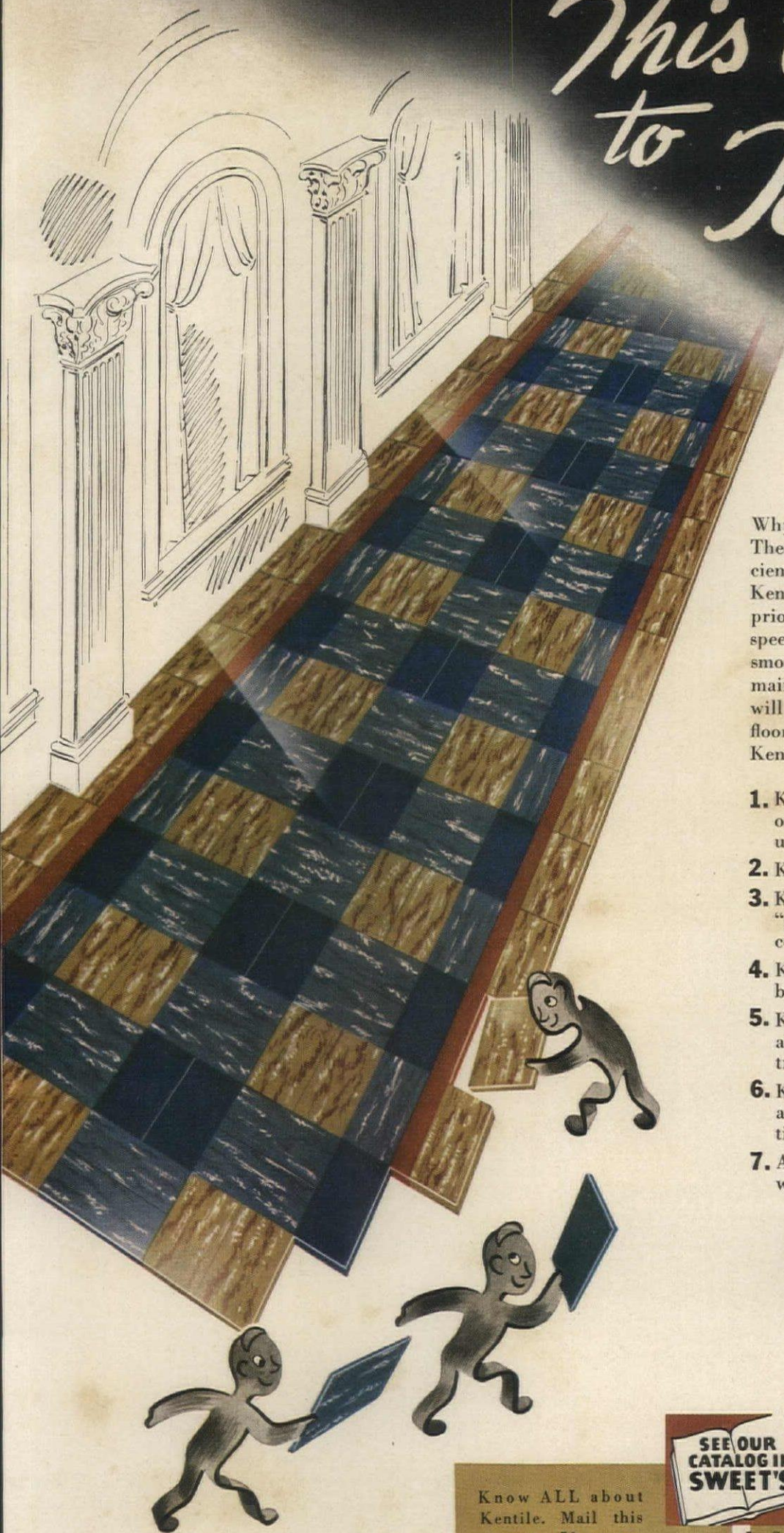


\*Reg. U. S. Pat. Off.

BUILT-UP ROOFS . . . SHINGLES . . . ROLL ROOFINGS . . . ROCK WOOL INSULATION . . . WATERPROOFING . . . BLACKOUT PRODUCTS



# This Way — to Tomorrow!



Why do you fight? So *tomorrow* will be free, too! Then hurry today — and build for all round efficiency, also! One immediately available aid is Kentile — so plentiful it doesn't even require a priority rating — a flooring laid with utmost speed — and, finally, a champion for efficiency — smooth, clean, indestructible, practically self-maintaining. And when *Tomorrow* comes, you will have the kind of colorful, beautiful, resilient floor wanted for Peace, too! Know ALL about Kentile. A few of its outstanding features are:

1. Kentile, although resilient and beautiful, is one of the most durable floorings — is even used in heavy duty plants.
2. Kentile is one of the lowest cost floors made.
3. Kentile is moistureproof — used for countless "problem" areas — even on concrete in direct contact with earth.
4. Kentile resists all regular staining — cleaned by a mop.
5. Kentile is laid with amazing speed — is available at once — installed by authorized contractors in any part of America.
6. Kentile offers a million patterns and colors — any design you conceive with its 44 colors, 12 tile sizes.
7. A Kentile floor can later be altered in any part without disturbing the other areas.

**KENTILE**  
*Asphalt Tile*  
Trade Mark Reg.



Know ALL about Kentile. Mail this coupon. If grease causes you trouble, send for the FREE "grease tester". Kentile information service obligates you in no way. Act now.

DAVID E. KENNEDY, Inc., Dept. E.  
58 Second Avenue, Brooklyn, N. Y.

Send ☐ Catalog ☐ Grease Tester ☐ Representative  
NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, ETC. \_\_\_\_\_



# A Tip for Architects from the W.P.B.

**I**LLUMINATION must be sufficient for all visual tasks," says the W.P.B. in a recent booklet on war plant efficiency. "Light should be distributed evenly over the entire area. *Glare must be absent.* Dingy walls and ceilings cut down the efficiency of the lighting system and are bad for employee morale."

It was to fill these needs that research engineers for National Gypsum Company, the wall and ceiling specialists, developed the new Gold Bond Sunflex Deluxe wall paint. Sunflex Deluxe provides the higher light reflection without glare recommended by W.P.B. It in-

creases illumination, conserves electricity, protects against eyestrain, reduces accidents, lowers rejections, and speeds production.

When walls and ceilings are painted with Gold Bond Sunflex Deluxe, it's easier to keep lighting efficiency up and maintenance costs *down*. Sunflex Deluxe washes easily with ordinary soap and water. One coat covers practically any surface—even brick or concrete—and it dries in one hour without any objectionable paint smell. Rooms can actually be occupied the same day they are decorated—industrial plants and commercial

buildings painted without stopping work. There's no interruption to plant production.

This new low-cost washable wall paint is another example of the research leadership that has helped Gold Bond grow, in 16 years, from a company with one mill and a single product to an organization with 21 modern plants and more than 150 different products.

Sunflex Deluxe is handled by dealers everywhere. A post card will bring you a new color chart showing the full line of colors. Paint Division, National Gypsum Company, Buffalo, New York.



Specify the New Washable Gold Bond Deluxe Wall Paint for any war time building, from defense homes to bomber plants. It dries in one hour, washes *clean* with soap and water, and improves illumination by reflecting more light without glare.



BUILD BETTER WITH  
**Gold Bond**  
*Everything - for walls & ceilings*

More than 150 products including  
WALLBOARD...LATH...PLASTER...LIME  
METAL PRODUCTS...WALL PAINT  
INSULATION...SOUND CONTROL

*National Gypsum Company, Buffalo, New York*

PRODUCING UNITS AT: . . . NEW YORK, N. Y. . . CLARENCE CENTER, N. Y. . . AKRON, N. Y. . . PORTSMOUTH, N. H. . . SAVANNAH, GA.  
FORT DODGE, IA. . . MEDICINE LODGE, KAN. . . ROTAN, TEX. . . LUCKEY, O. . . BELLEFONTE, PA. . . YORK, PA. . . NATIONAL CITY, MICH.  
ORANDA, VA. . . SALTVILLE, VA. . . NILES, O. . . MOBILE, ALA. . . NEWBURGH, N. Y. . . ALEXANDRIA, IND. . . DUBUQUE, IA. . . DOVER, N. J.



## THE NEW HOUSE 194X

A major purpose of THE FORUM has long been to dramatize the contribution of modern design to the building of a better America. One way this purpose has been carried forward is through the presentation of the executed work of modern designers, which this magazine has emphasized ever since it appeared in sufficient quality and quantity to warrant publication. Another, that in recent years has assumed ever-increasing importance, is through the publication of projects especially prepared to show what design might accomplish if freed from the restrictions of everyday practice.

In the opinion of THE FORUM's editors, there has never been a better time than now to carry this approach still further. It is everywhere recognized that the end of the war will bring about vast changes in our everyday lives. These changes will affect habits of consumption and methods of production, and inevitably will be reflected in the physical form of the world in which we live—and which it is the business of designers to mold.

The small house, in our experience, is the common denominator of interest for professionals and laymen alike. In a good many ways, it sums up what we are fighting for. The dream of a small house to come, if worked out with a real appreciation of what the war is about, and what the peace potential is, can be potent propaganda for our side. It can even sell War Bonds—right this minute.

The war has given a tremendous impetus to mass-produced housing. Entire towns have been built as a single construction operation, employing the most efficient field fabrication techniques. Prefabrication plants are working at capacity—and expanding their capacity—to meet Government orders for war housing. The home building industry is acquiring a vast reservoir of experience in advanced methods of construction which will have an enormous effect on postwar production. During the emergency it has not been feasible to match these improvements in technique with corresponding improvements in design. Before a vast postwar building program can become a reality, it will be necessary for house design to catch up with house production—for the prefabricator to adopt design standards as advanced as his production and construction methods. And just as the prefabricator must tune his design to a higher pitch so must the designer learn to work within the adequate but absolute limits of mass production.

It is to this proposition that this issue of THE ARCHITECTURAL FORUM is dedicated. Assuming prefabrication—and taking into account the tremendous increase in productive capacity which the war has brought about, wartime elimination of restrictive practices, the availability of new materials and fabrication methods, new and higher standards of illumination, thermal comfort, atmospheric composition, and so on—how can the House of 194x be made the most-wanted commodity in the competitive postwar market place? The only group who can supply the answer, or even an approximation of the answer, are the progressive, forward-looking designers. In this issue 33 U. S. designers present their ideas. Most of these projects should be viewed as pilot designs indicating the trend but needing further study and adaption for final development.

THE EDITORS

P. S. One measure of the current stature of prefabrication is the 73,362 war housing units costing \$220,000,000 thus far allotted the industry. Another is the many other war needs being served by prefabricated structures. For an impressive review of prefabrication in print note the special advertising section in this issue starting on page 154.

*Note: All rights in this issue are reserved. All designs are copyrighted, and patent applications have been filed relating to certain thereof.*



*This memorandum was sent to all contributors to the House of 194x issue before they began work on their designs. It is therefore the "program" on which their work was based, and a suitable introduction to the projects as actually developed.*

MEMO TO: Designers of the House of 194x

FROM: THE FORUM's Editors

The following is a compilation of various ideas, theories and schemes for the house of the future. It makes no pretense of being all-inclusive but does represent our thinking about some of the problems the postwar designer must solve. As such, it may be valuable in suggesting new avenues of approach. The various ideas are grouped under five headings: "Planning," "Kitchen-Work-Center," "Bathrooms," "Storage" and "Living Rooms."

### Planning

If the postwar house is to be mass-produced, it must be standardized. But, standardization cannot mean sameness. A whole series of variables--family size, orientation and slope of lot, direction of view and breeze and individual predilections--must be met in their many combinations if mass-production is to compete successfully with custom-fabrication. And, if the postwar house is to offer more than its prewar prototype--which it must--it must also be adapted to different needs resulting from changes in family composition as the family grows "older."

Can a single plan be devised, so flexible that it meets all of these contingencies? Or, will scores of plans be needed, based upon a number of identical parts? Or, is the best solution a system which makes changes during the life of the house cheap and easy?

It is not enough to say: "My system of construction is so flexible that it can be used for any type of house." The general public is not interested in buying a Meccano set, nor is it capable of designing its own houses. One of the advantages of mass production is that it permits absorption of the cost of one careful design in thousands of units. Obviously, more time could profitably be absorbed in a design so complex as a house than the individual consumer is capable of paying for--this is a problem which the conscientious architect is constantly bumping against. But, the house manufacturer will be able to pay for literally thousands of hours of skilled design talent for each basic model, and must, if he is to survive, offer greater utility and flexibility than his craft competitor.

Much more constructive than projecting a "perfect" plan would be to suggest how this problem of variety within standardization can be solved: how, for instance, the need for an indoor playspace for small children can be satisfied, and the space so used converted to other purposes when a playspace is no longer needed. Or, how a given house type, providing certain facilities at a given price, can be varied for lots facing and sloping in different directions, for the condition where the best view coincides with the best orientation and the condition where these are reversed. Also, of course, how the old problem of indoor-outdoor flexibility and the need for hobby, adult recreation and "rumpus" space can be met. Finally, there is the question of wholly new problems arising out of new ways of living whose general nature can only be guessed. Trite examples are the long-heralded increase in leisure time, television, the secondary effects of air conditioning, and the like. Doubtless you can think of better. One thing is certain: nothing in the postwar house can be "frozen" for the life of the building--most successful will be the plan and construction method which is easily modified to meet new requirements.

### Kitchen-Work-Center

The one room in the prewar house that captured the popular imagination was the kitchen. Why? Because in this one room the joint effort of the equipment manufacturer, the designer and the builder succeeded, at least in part, in realizing the possibilities of industrial mass-production and establishing modern scientific standards of convenience, sanitation and illumination without over-stepping economic boundaries or running ahead of popular demand. And yet, the so-called "streamlined" kitchen is far from perfect. Its essential scheme--continuous counter-cabinets and counter-height equipment topped by continuous wall-hung cupboards--handicaps good natural lighting and puts most of the storage



space in a stoop-or-stretch position. It ignores the need for work surfaces at various heights—especially surfaces low enough to work at sitting down.

The shiniest prewar refrigerator is still an overly deep, too-low box better fitted for hide-and-seek than for storing the innumerable small articles it must contain, and spills most of its valuable "cold" out of the bottom of the opening every time you open the door. The counter-height range is definitely inferior to the "high-oven" model it superseded—the oven is awkwardly low and the broiler a few inches above the floor. And, any sort of range is archaic in comparison with specialized cooking equipment like pressure cookers, lunchroom "broilerators," heated chafing dishes, electric griddles, etc. (Compare the amount of energy—human as well as mechanical—consumed in boiling an egg on top of the stove and in boiling it in an automatic electric egg boiler). The bottom of the sink is still six inches lower than experts assert it should be—simply because no one has devised a way to harmonize a higher rim and drainboards with the surrounding cabinet work. Mechanical dishwashers have a long way to go before they will match in efficiency the restaurant dish sterilizer. Waste disposal is still largely an unsolved problem.

The postwar kitchen will be able to solve these problems and the many others which must be solved only when it becomes a standardized, prefabricated unit embodying the results of painstaking design effort. Prewar kitchens were standardized in the sense that they usually conformed to one of three basic arrangements--the U, the L and the strip--and consisted of standardized elements. But, no one was bold enough to take advantage of this fact by designing and producing complete kitchens--not necessarily shipped in one piece, but designed as a unit. The possibilities of this approach are tremendous.

The postwar kitchen must become a real "work center"—incorporating automatic laundry machines and equipment for other work which continues to be done at home. Your guess is as good as any as to whether the trend will be towards more such equipment (as it becomes more and more efficient) or less (as commercial facilities are developed). A case in point is the "quick freeze" unit. Will this develop on a private, cooperative or commercial basis? If the first, it will have a considerable effect on the kitchen. Will the housewife demand a kitchen television set for illustrated cooking lessons and soap operas or, will she try to get through with her work as rapidly as possible so as to be free for an afternoon meeting of the League of Women Voters? Will she want a kitchen small enough to forget or big enough to cut out dresses? Your wife may be able to tell you.

### Bathrooms

Like prewar kitchens, the prewar bathroom was considered something to brag about. Actually, this feeling was based on the fact that it could be kept reasonably clean (if you didn't look too closely in the corners), and had running water—beyond this the bath has little to boast about. Consider the morning routine of the typical home owner, Mr. Smith:

Rubbing his eyes, Smith enters his peach-and-black sanctuary after getting up early so as to be out of the way by the time the children are roused. Removing his wife's and/or daughter's lingerie from the shower-curtain-rod (where it has been hung to dry), he opens a valve labeled "hot" as quickly as possible, since he knows from experience that it will take some time to empty the pipes of cold water before the hot begins to flow. Follows a long period of delicate adjustment of the shower valves to bring the resulting spray to the correct temperature, complicated by the fact that, since he has just flushed the closet and the tank is filling, the cold water barely flows (if, while he is in the shower, someone trips a flush valve elsewhere in the house, he is likely to be scalded). Charitably assuming that there is a soap dish at the right height for the shower, that there is no window shade within the shower compartment to be spoiled by the spray, and that there is not a half-inch crack between tub and wall finish through which water runs down to the kitchen ceiling, Smith emerges from his bout with the shower valves to find the entire room saturated with moisture, the medicine cabinet mirror covered with mist, and his electric razor hidden behind the aspirin and iodine bottles. Johnny is already scratching at the door and clamoring for his "turn."

Mrs. Smith, too, has complaints to register about this citadel of sanitation. She would like more towel racks (Smith is not a handyman, and besides, as he has frequently pointed



out, how can he fasten anything to the tile walls?). She would like a wash basin big enough to bathe the baby, with valves and spout out of the way for this and for easy cleaning, and a flexible-hose spray (like the one on her kitchen sink) for rinsing her hair after she washes it. She would like twice as much space in the medicine cabinet, a 3-way mirror, a make-up counter for cosmetics, a place to keep the hair dryer, room to store towels. If she has a diaper problem and lots of imagination, it may have occurred to her that the bathroom would be a good place for the automatic washer; if anyone had ever suggested the possibility, she would be wild about a drying cabinet for her personal laundry. Ditto for heated towel racks (simply a pipe coil through which the hot water is permitted to circulate), sterilizing lamps, a built-in sunlamp, a dental lavatory, a really good enclosure for the shower (glass or transparent plastic).

There is only one way for the Smiths to get everything they want in a bathroom, and that is for someone to approach the problem of the bathroom as a whole. After the war, with various non-ferrous metals (aluminum, monel metal and others) competing with vitreous-enameled iron and steel, and ceramics in the fixture and wall-finish field, there is a real possibility that bathroom fixtures will be merged with the walls, and the whole lower portion of the room will be fabricated in two or three pieces. Resulting standardization of the room as a unit will permit endless study of all of its details, and the development of scores of features which, as in the case of popular and higher-priced cars, will be present or absent according to the price class into which the unit falls.

Two basic trends are possible; one, towards the subdivision of the bathroom into functional units so as to better serve the large family; the other, the development of small, highly compact and economical "personalized" bathrooms for use two or three to a house.

### Storage

Architects have been talking about prefabricated closets for a long time without conspicuous effect. Nevertheless, the idea is perfectly sound if imaginatively developed. There is a very real need for more efficient storage equipment which can only be met by fitted, carefully designed and mass-produced closets designed to afford maximum utility at minimum cost. Nobody is going to get very excited about closet prefabrication simply as a way to save money, but consumers will become excited indeed when offered a line of really superior storage units, with raised floors and rounded corners for easy cleaning, moth repellent linings, built-in drawers, specialized trouser, coat and hat hangers, shoe racks, suitcase racks, proper lighting, etc. And, once such a line is produced in quantity, resulting economies will make it available at no more cost than the present closet.

Storage problems, however, do not begin and end with the bedroom closet. There is also need for toy and game storage, room for cleaning equipment, linen, blankets and soiled laundry, a place for the card tables, room for parking the baby carriage, "dead" storage for trunks, and—outside the house—places to keep gardening equipment, bicycles and the like. The elimination of the basement and attic—traditional safety-valves which have always compensated for the lack of proper storage space—means that all of these problems must be solved. Each is worthy of painstaking study which a closet-hungry public will reward with its custom the moment really well worked-out units are placed on the market. The postwar house which provides really efficient storage equipment, even if deficient in many other respects, will have a running start over all contestants for the postwar market.

### Living Rooms

Similar improvements in the living rooms of the house—those used for relaxation, dining, recreation, sleeping, study and so on—are harder to project but none the less necessary. One reason for this is that the functions of these rooms are not so clearly defined or generally understood. The functions of the "living" room, for instance, are exceedingly complicated. Normally they include reading, conversation, study, listening to the radio, writing letters, and social entertainment ranging all the way from a bridge foursome to big parties. Frequently several of these activities must be carried on in a single room at the same time. The problem is further complicated by the fact that the living room is a seat of family ostentation, and often is furnished more with an eye to keeping up with the Joneses than family convenience.



The enormous popularity of the so-called "rumpus" room in recent years is not simply the result of a perverted yen for knotty-pine panelling or the invention of the oil burner; it is also the expression of a valid need for separation of certain of the functions of the living room from others. In part, of course, it represents a reversion to the psychology of the Victorian parlor (a room set apart for show, which in this case may be either the living room or the "rumpus" room). Nevertheless, there is also reason to believe that it is indicative of a need for at least two types of living space. The so-called "study," which everyone wants but few have, shows the need for a third.

With modern materials, and the modern sciences of acoustics and lighting, it should be possible to meet these various needs either in a single, articulated space or in two or more specialized rooms. Those who have tried the open front, soundproofed 'phone booths in New York's new Sixth Avenue Subway know that it is possible to produce relative quiet even in the midst of clamor with sound-absorbing materials; similarly, it might be possible to isolate a nook for reading and writing in the midst of a large, otherwise noisy room. With sliding doors and windows, we can create spaces which are alternately rooms and porches, can throw a series of small rooms together for major social functions. It is time we recognized that the so-called "open" plan is only half the answer to the problems of modern living: the need for privacy, and separation of the various functions of the living room (such as listening to the radio and reading) is equally pressing.

It seems likely that the designer of the house of the future will have to be as much concerned with rooms that "sound" and "feel" right as with appearance and convenience. The movie industry, for instance, has developed small rooms for screening pictures which sound exactly like big theaters—is there any reason why the room in which we listen to the radio should not be made to sound like a concert hall when we listen to "big" music? Modern rooms, with their bare walls and sparse furniture often sound hollow—like an empty apartment—and frequently present other annoying acoustical problems. Most of these faults can be obviated by non-parallel walls, sloping ceilings or curved surfaces if the designer is sufficiently well acquainted with acoustical correction.

Windows are covered with draperies and curtains at night because otherwise their blackness is depressing, and they present annoying reflections of light sources within the room. But this can also be corrected by sloping the glass and, when the scene outside is dark, spotlighting the view.

People have been content for years with furnishings designed to rest on the floor or some other horizontal surface. But bookshelves, cabinets and lighting fixtures supported by the walls have definite advantages which can only be fully exploited when a system of wall finishes is devised which permits the ready attachment of such items without injury to the surface. (Slotted strips like those used to support store-fixture shelf brackets, set flush with the wall surface every few feet, might do the trick and also provide vertical channels for wires.)

A really dramatic picture window in the living room is dear to the heart of the conservative as well as the modernist. But, such windows must be so designed and constructed that they do not complicate lighting and heating problems and do provide adequate ventilation without obstructing the view.

To work out a really good lighting system for the small house would require as much time and skill as is now absorbed in the whole design. The same is true of heating, acoustics and ventilation. Mass-production of houses will, for the first time, permit adequate study of such problems in all their detail, with consequent effects on every room in the house. It is not possible at present to predict all of the changes that will result, but it is possible to take a particular room, such as the living room, game room or dining space, and work out in a general way what the effect of a thorough-going integration of all these factors might mean. The living room if used for large-scale entertainment, would certainly have to have special ventilation equipment (unless smoking is abolished by constitutional amendment). Bedrooms, obviously, can be made much quieter, dining rooms can be better lit, and so on. And, there is always the possibility that these room designations, and the compromises they represent, will give way to some more functional subdivision of the house.



NAME	PROJECT NO.	PROJECT	PAGE
AMISANO, JOSEPH	3	<i>Row-Type Apartments</i>	76
BENNETT, RICHARD M.	10	<i>All Purpose Window</i>	96
BLACH, PETER	8	<i>Service and Circulation Core</i>	90
BOGNER, WALTER F.	4	<i>Prefabrication</i>	78
CIVKIN, VICTOR	21	<i>House, Kitchen, Window</i>	122
CLARK, JOHN PORTER	22	<i>New Architectural Elements</i>	124
CORBETT, MARIO	33	<i>Light Metal House</i>	150
DAILEY, GARDNER A.	25	<i>House DE-2, Magic Carpet Series</i>	132
DAUB, GEORGE	8	<i>Service and Circulation Core</i>	90
ESHERICK, JOSEPH, JR.	25	<i>House DE-2, Magic Carpet Series</i>	132
FREY, ALBERT	22	<i>New Architectural Elements</i>	124
GOODMAN, MICHAEL	27	<i>Precision Concrete for 194x</i>	136
HARRIS, HARWELL HAMILTON	18	<i>Bathing Lounge</i>	116
HOMSEY, VICTORINE AND SAMUEL	1	<i>Foundation Saver, Prefabricated Parts</i>	71
HOYT, BURNHAM	26	<i>House, Details, Bedroom</i>	135
KASTNER, ALFRED	11	<i>House, Prefabricated Utility Units</i>	98
KECK, GEORGE FRED	28	<i>Housing Standards</i>	138
KETCHUM, MORRIS, JR.	9	<i>Master Room</i>	92
LASZLO, PAUL	32	<i>House of Pressure-Molded Plastic</i>	148
LITTLE, ROBERT A.	17	<i>Housing Economics</i>	114
LYNDON, MAYNARD	2	<i>Packaged Bathroom</i>	74
MAC KIE & KAMRATH	20	<i>Movable Space Dividers</i>	120
MAIER, DOUGLAS P.	30	<i>Prefabricated House</i>	143
MARX, SAMUEL A.	24	<i>House</i>	130
NEUTRA, RICHARD J.	15	<i>Diatalum Dwellings</i>	108
NICHOLSON, EMRICH	30	<i>Prefabricated House</i>	143
PERKINS, G. HOLMES	17	<i>Housing Economics</i>	114
RAPSON, RALPH	7	<i>A Fabric House</i>	87
REISNER, JEDD S.	9	<i>Master Room</i>	92
ROHDE, GILBERT	16	<i>Gadgets for 194x</i>	112
RUNNELLS, DAVID B.	7	<i>A Fabric House</i>	87
SHARP, J. STANLEY	19	<i>Planning for Economy and Flexibility</i>	117
SHAW, ALFRED	13	<i>Housing Unit</i>	104
SKIDMORE, OWINGS AND MERRILL	12	<i>Flexible Space</i>	100
SORIANO, RAPHAEL S.	31	<i>House, Mobile Utilities Section</i>	146
SOURIAN, ZAREH	14	<i>Prefabricated Structural Unit</i>	106
STONE, EDWARD D.	19	<i>Planning for Economy and Flexibility</i>	117
STUERMER, RAY	13	<i>Housing Unit</i>	105
THIRY, PAUL	5	<i>Housing Unit, Details</i>	82
WALBRIDGE, COPE B.	19	<i>Planning for Economy and Flexibility</i>	117
WARNER, CHARLES H., JR.	6	<i>Prefabricated, Demountable House</i>	84
WRIGHT, MARY AND RUSSEL	23	<i>Bedroom</i>	128
WURSTER, WILLIAM WILSON	29	<i>Prefabrication</i>	140





**VICTORINE AND SAMUEL HOMSEY**

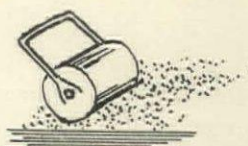
Both studied architecture in Boston and maintained an office there until 1931. Their present office, in Wilmington, was opened in 1935 and has turned out a distinguished group of residential, commercial and domestic structures. Mr. Homsey has also carried on a successful career as a painter in water color and oils, with four one-man shows (New York, Boston, Louisville and Colorado Springs) to his credit. Last year he was appointed director of the Wilmington Academy of Art.

"A great deal of the cost of most small houses is buried in the ground, and the owner has considerably reduced his available funds before he starts the real construction. The cause of this necessary expense is the ever changing moisture content of the soil.

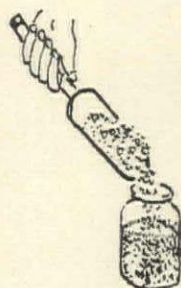
"It occurred to us that the new research in soil stabilization might offer a solution to this problem. The main steps in treating the soil are noted on the drawing of a typical foundation section for a small house. The work involved might make the method impractical for a single small house, but we believe that for a housing development the procedure could be efficiently worked into the grading operation.

"The treated soil should be carried approximately three feet beyond the exterior walls to cushion the movement of the soil beyond due to frost, and to protect the interior from moisture. A six-inch layer of topsoil above this stabilized section would allow grass to be planted up to the house walls. As shown, the first floor joists could be kept as close to grade as desired. The treated soil would definitely discourage termites.

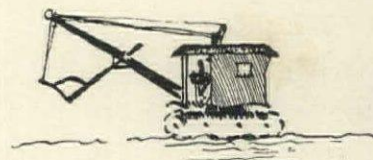
"Where basements are desired, the soil under the basement floor would be stabilized, footings could be made smaller, and the basement floor thickness could be reduced to three-quarters of an inch. The treatment of the sides of the excavation would eliminate caving in and washing during construction of the retaining walls."



**7 COMPACTING.** Before compacting, the treated soil should be brought to proper grade. Compaction may be done with any type roller that will produce the required density.



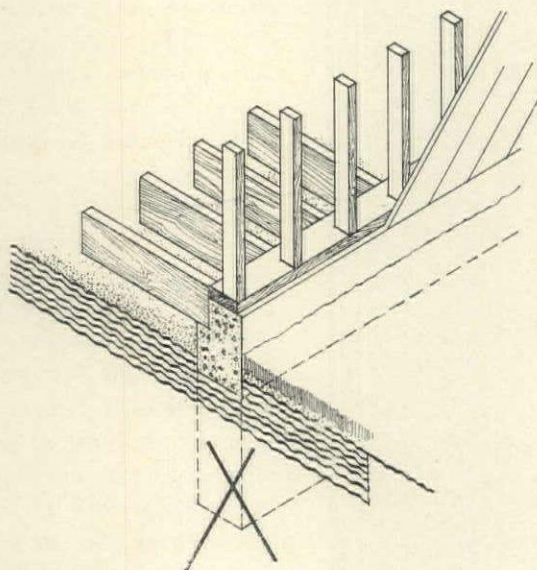
**1 SOIL SURVEY.** Samples should be taken and sent to laboratory to determine required quantity of stabilizer.



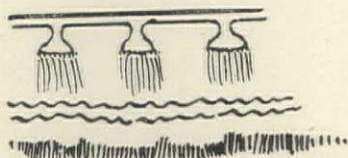
**2 PREPARING SITE.** Remove top soil to three feet beyond house walls. Scarify the area to depth of six to ten inches.



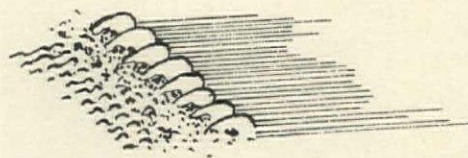
**6 MIXING.** Mix again until uniform color is obtained.



**3 ADDING STABILIZER.** The powdered stabilizer is spread uniformly over the area.

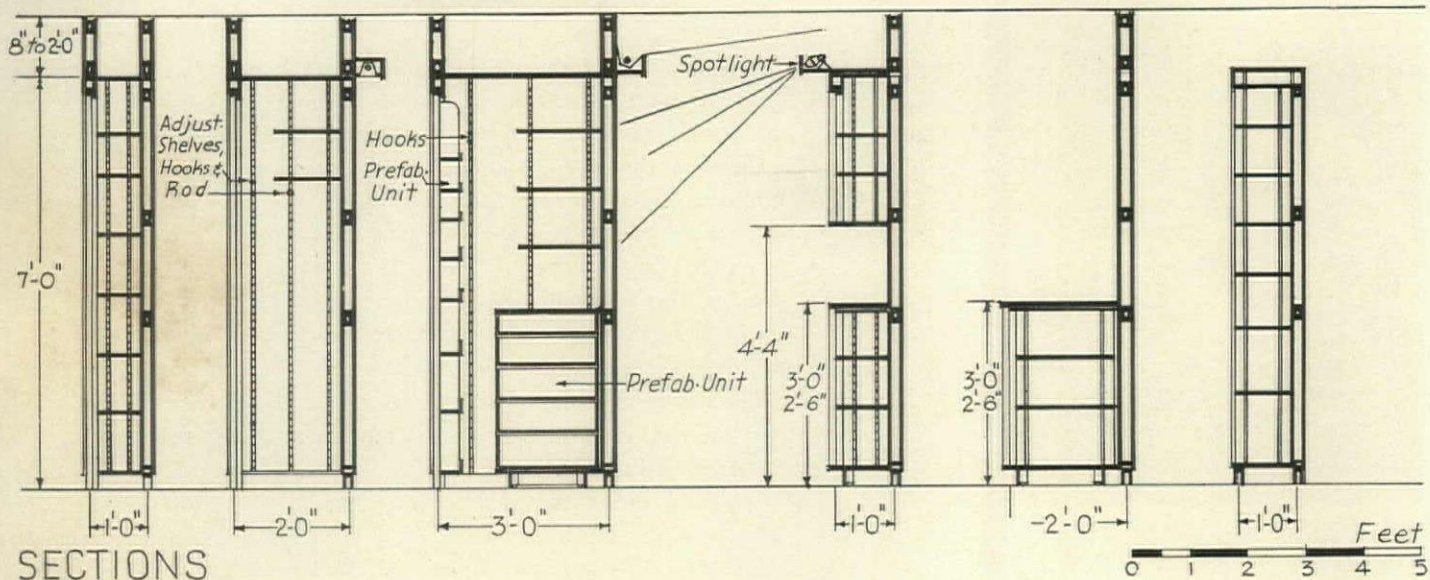


**5 ADDING ALKALI SOLUTION.** Spray an alkali solution (caustic soda and water). Quantity depends on amount of dry stabilizer used and on moisture content of the soil.

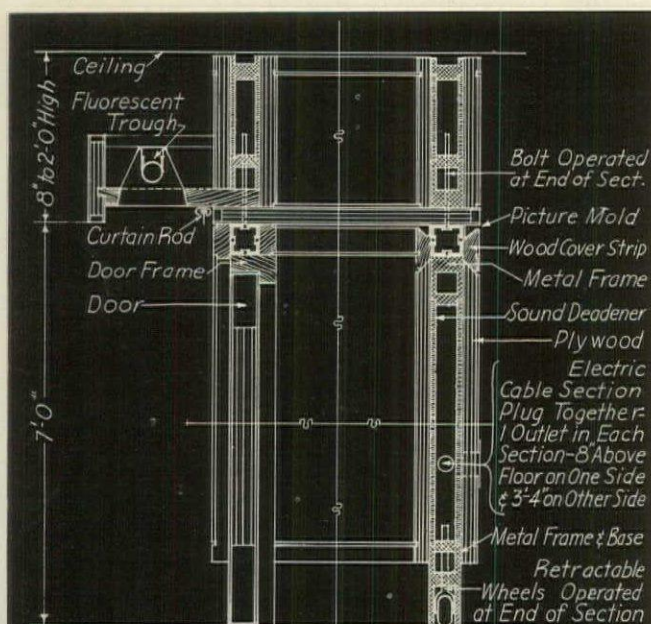


**4 MIXING.** Mix the stabilizer into the soil using disk harrows or other suitable equipment.

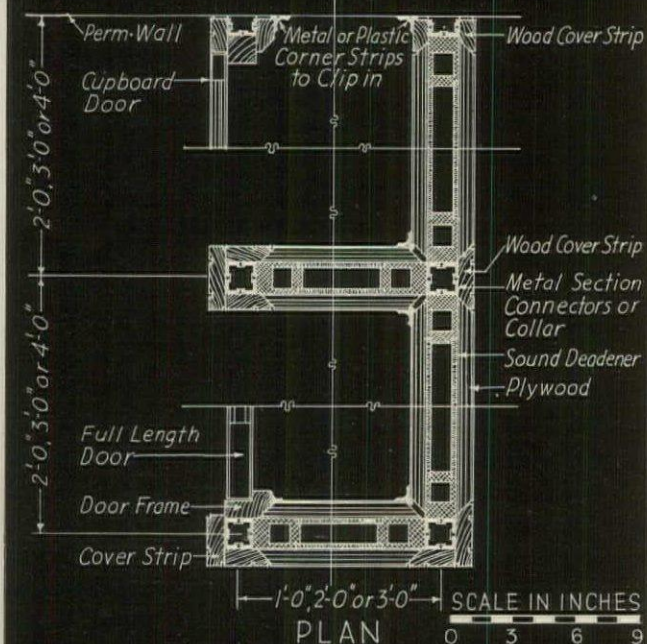




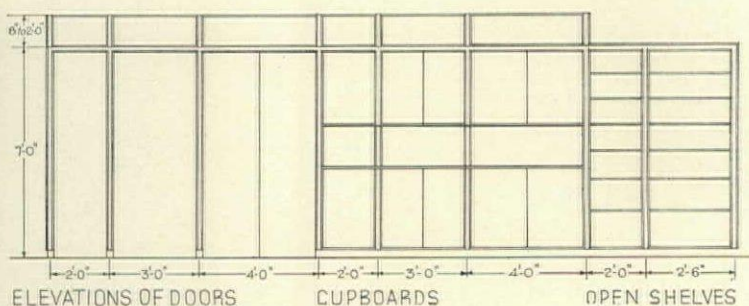
SECTIONS



SECTION



PLAN



ELEVATIONS OF DOORS

CUPBOARDS

OPEN SHELVES

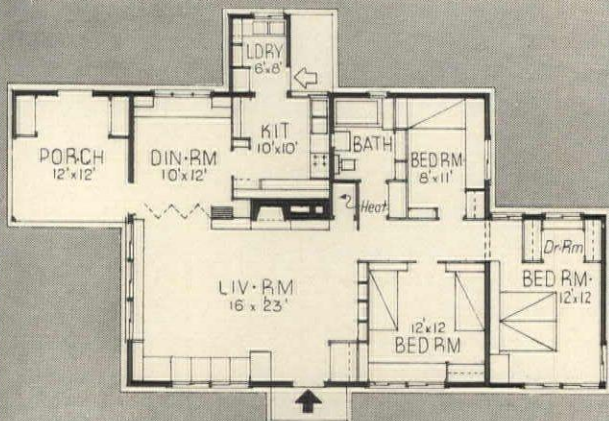
"The small house of 194x may be built with only one permanent interior partition, containing the necessary plumbing. All other partitions could be movable, to take care of changes in family requirements. It is assumed here that the heating system will be limited to the exterior walls, floors or ceilings.

"The partitions could be made up of a series of stock-size sections, one, two, three, four and seven feet high, built up of plywood panels on metal frames, with retractable fiber wheels set in the metal base. There are two electric outlets to a section, eight inches above the floor on one side and 3"-4" high on the other. In assembling the sections the higher outlet would go on the side with counter or cabinet units.

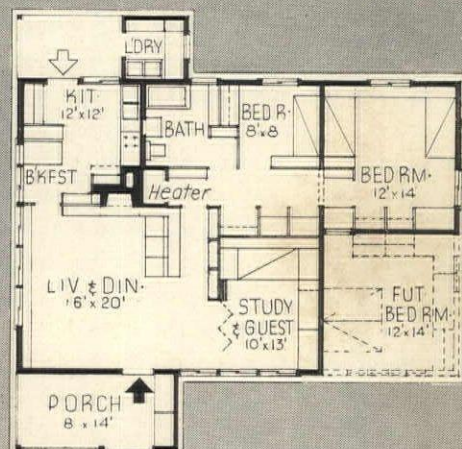
"The space above the sections can be closed or open. The upper filler pieces may also have projecting members containing fluorescent light troughs, spot lights or ventilation ducts. The sections shown can be assembled on the job in any position and combination required. They are fastened by a series of square metal collars which slide over flat knobs which project at intervals from the end of each section or screen. Wood cover strips (for all intersections, straight, interior, exterior corners and door trim) have similar knobs on their inner surfaces which slip up and lock into the same collar. The base allows the necessary play for slipping cover strips into position. No tools are required for assembling.

"Flush doors can be provided to fit the various combinations of sections, and the frames have knobs similar to those described above. To complete the storage facilities, a number of prefabricated units have been designed. A few of the possibilities are indicated on the drawing above."

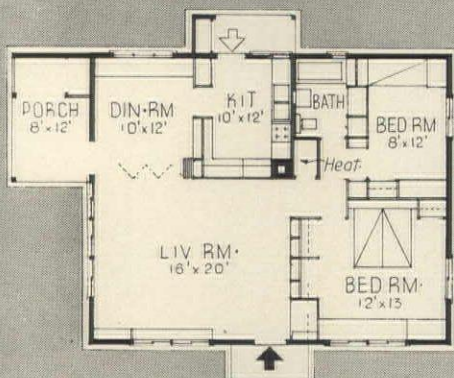




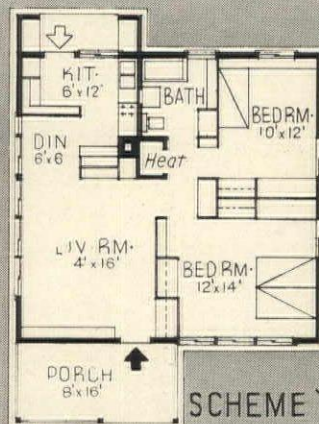
SCHEME "A" REVISED & ENLARGED



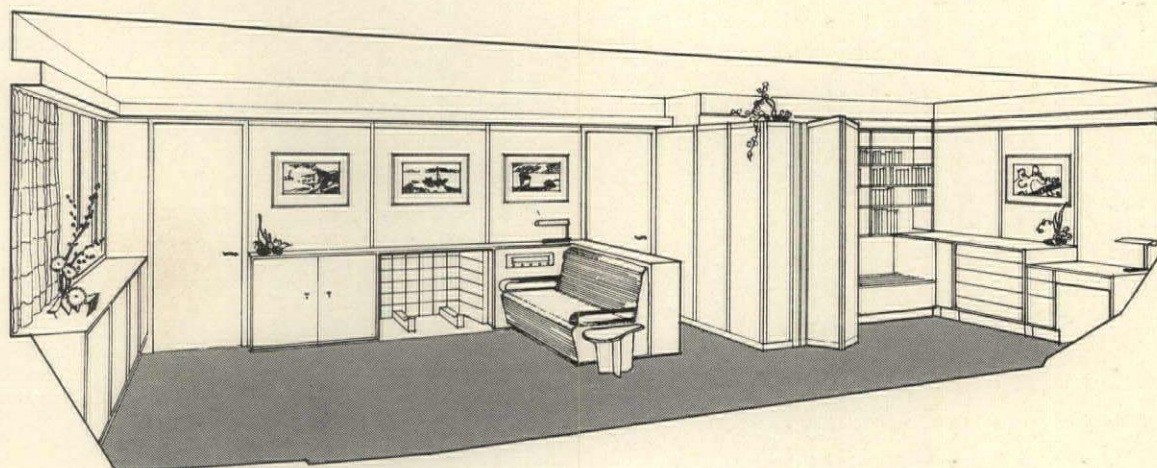
SCHEME "B" REVISED & ENLARGED



SCHEME "A"



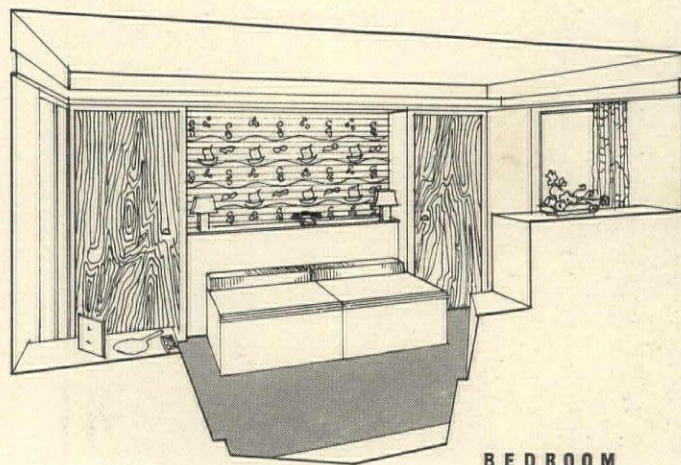
SCHEME "B"



LIVING ROOM

"The drawings on this page show two house schemes based on the use of movable partitions and storage elements. Each scheme has also been developed to permit the addition of a bedroom and other facilities.

"If this or some similar scheme should be adopted in the future, the architect's services will still be required for the interior as well as the complete structure in order to get the most pleasing and practical layout. He will also be called in for plans for rearrangement and additions from time to time."



BED ROOM



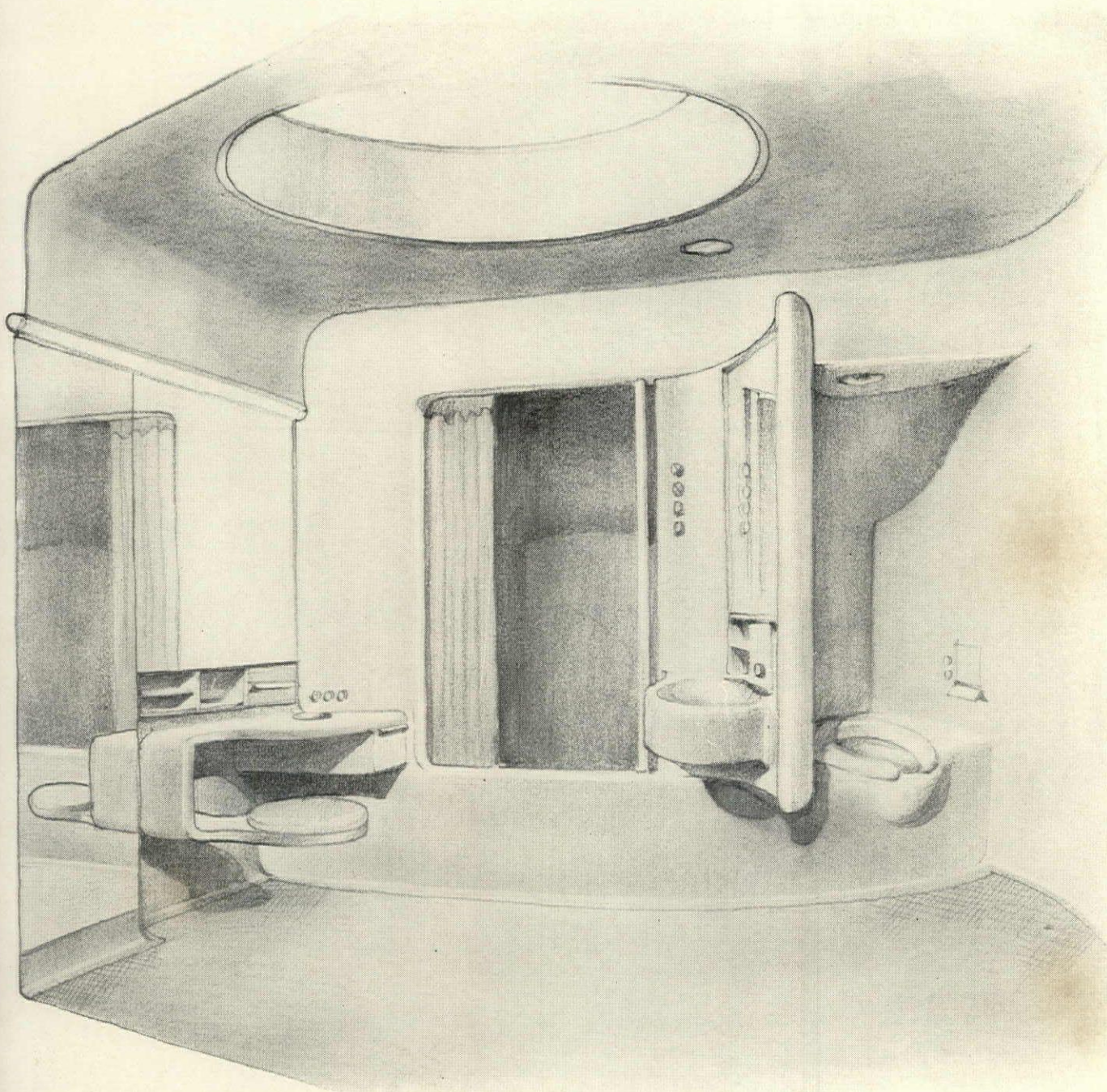
"Since the mechanics of the necessary functions of living are more universal than qualities like a 'sense of space,' style or esthetics, the space requirements for these functions are more susceptible to mass production. One could purchase a bathroom, a kitchen, a laundry unit and a heating plant—each a complete, weatherproof structure requiring a minimum of utility connections. The units might be placed in a number of patterns and permit a freedom of planning we have never known. The space for sleeping, recreation, relaxation, study—the greater and relatively less expensive bulk of the house—might be adapted to individual requirements without sacrificing the advantages of mass production in the expensive parts of construction. Good planning would produce a modest dwelling around the minimum of utility units, yet permit extension of the scale and capacity of the house, economically, whenever desired.

"The bathroom unit shown might, in time, be produced at a cost comparable to present specialized units like refrigerator and ranges. Such units, being complete in themselves, should have good salvage value. Distribution might imitate automobile merchandising, permitting the buyer color selection, 'de luxe' equipment, accessories, trade-in value and short term financing."

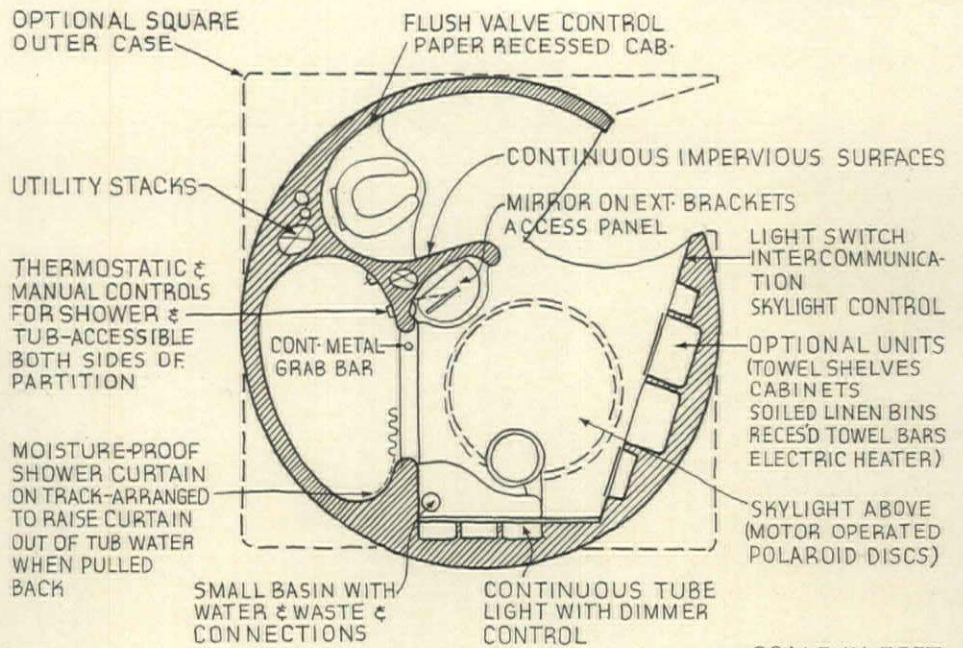
**MAYNARD LYNDON**



Architect, Detroit, Mich., studied at the University of Michigan and traveled extensively in Europe. Worked as a designer in Seattle and with the National Park Service in Washington. In 1935, formed the firm of Lyndon and Smith (since dissolved), which worked principally with schools and public housing.

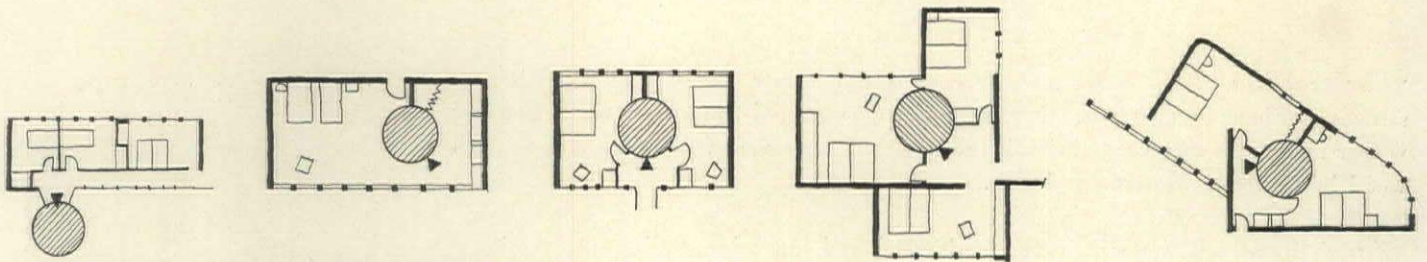




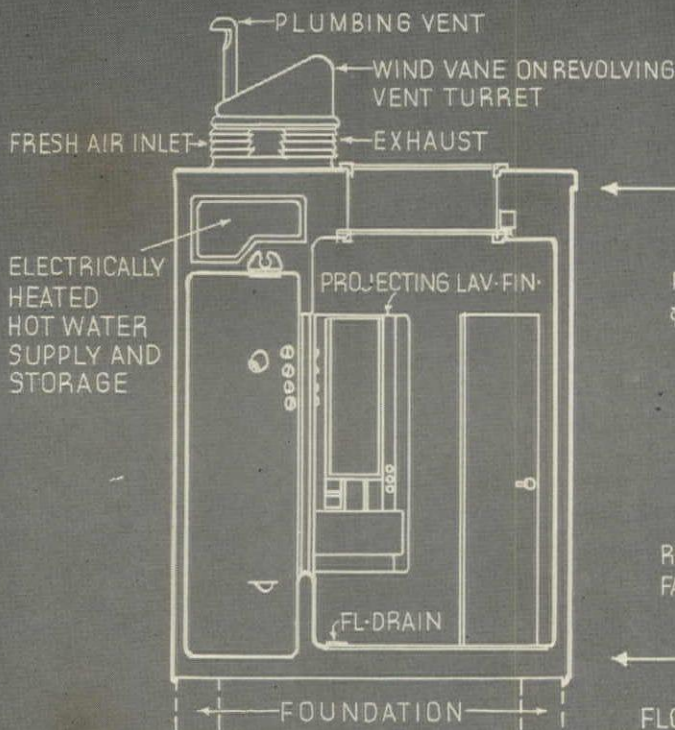


PLAN

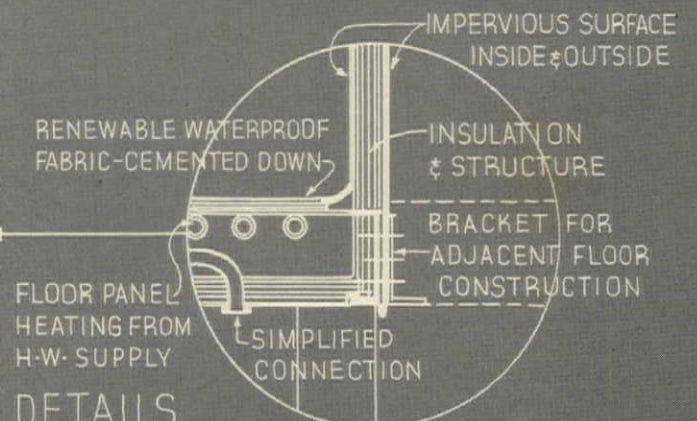
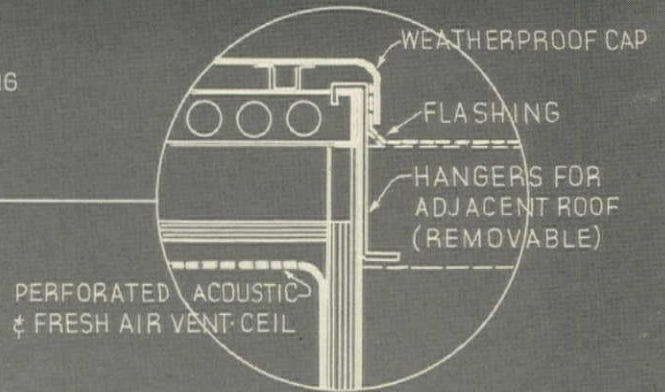
SCALE IN FEET  
0 1 2 3 4 5



TYPICAL INSTALLATION SCHEMES

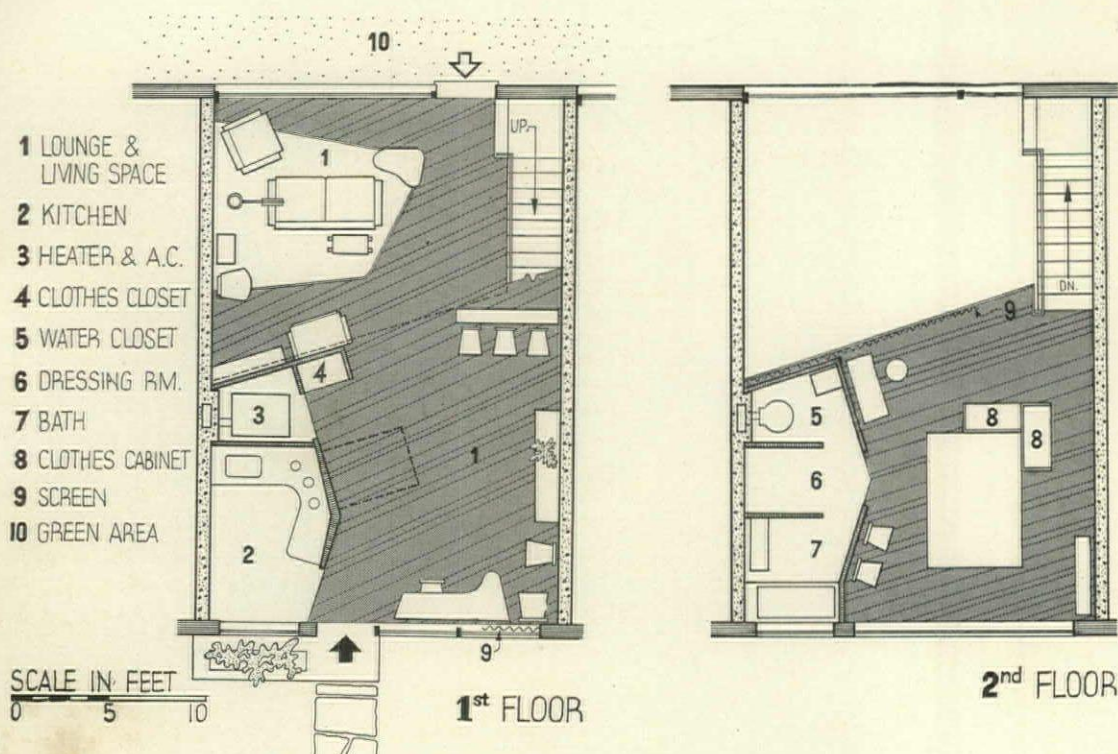


ELEVATION & SECTION  
SCALE IN FEET  
0 1 2 3 4 5



DETAILS





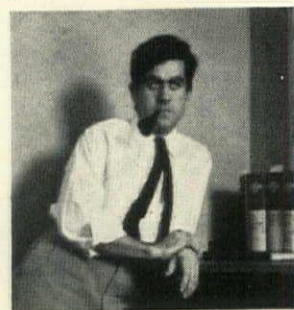
**“Construction.** Party walls are of reinforced concrete, supporting flat-slab construction of balcony and roof. Concrete stairs cantilevered from party wall. Exterior veneer material is arbitrary (brick is indicated). Floors are of striped, random-width wood laid directly on structural slab.

**“Furnishings.** All interior walls, mechanical and operating equipment, furniture, etc., to be prefabricated. Kitchen waste dispensed through decomposition chamber located under sink. Refrigerator under lid, so that contents can all be seen at once, in contrast with the present obsolete method of keeping essential foods in front of the refrigerator and having to wade through the mess to the milk at the rear. Refrigerated drawers below for bulk foods in specialized compartments.

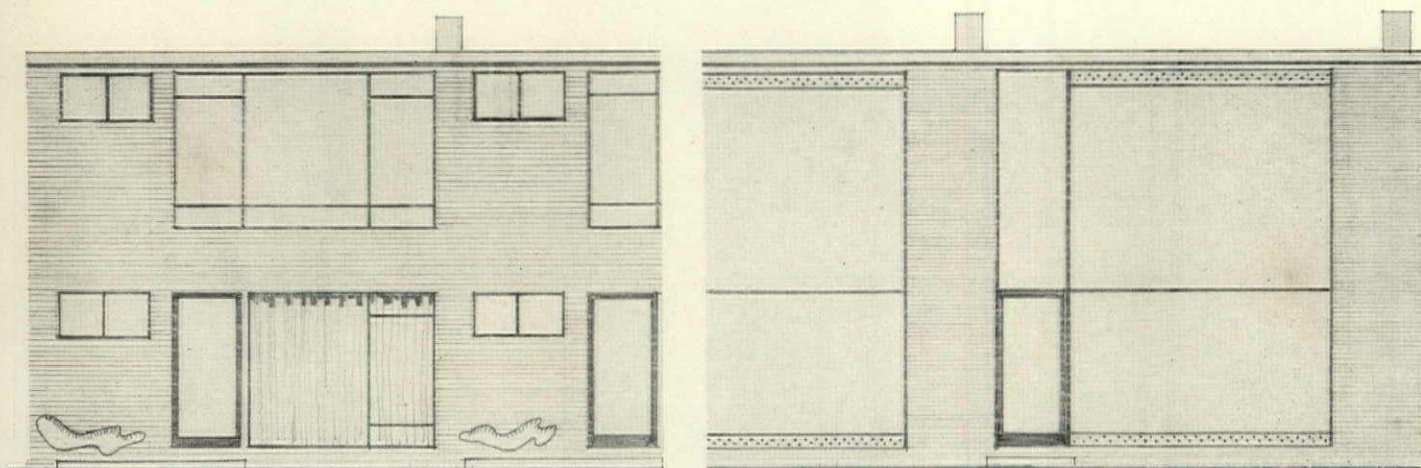
**“Ventilation.** Heating, ventilation and air conditioning are from electrical unit located in closet alongside the kitchen. Air conditioning primarily for extreme or discomforting temperatures. Ventilation in rear of house is through perforations above and below fixed glass areas as shown in the elevation. Other side has outswinging, top-hinged windows.

**“Painting.** Casein paints applied directly to concrete walls and underside of structural slabs. Maintenance by community organization.”

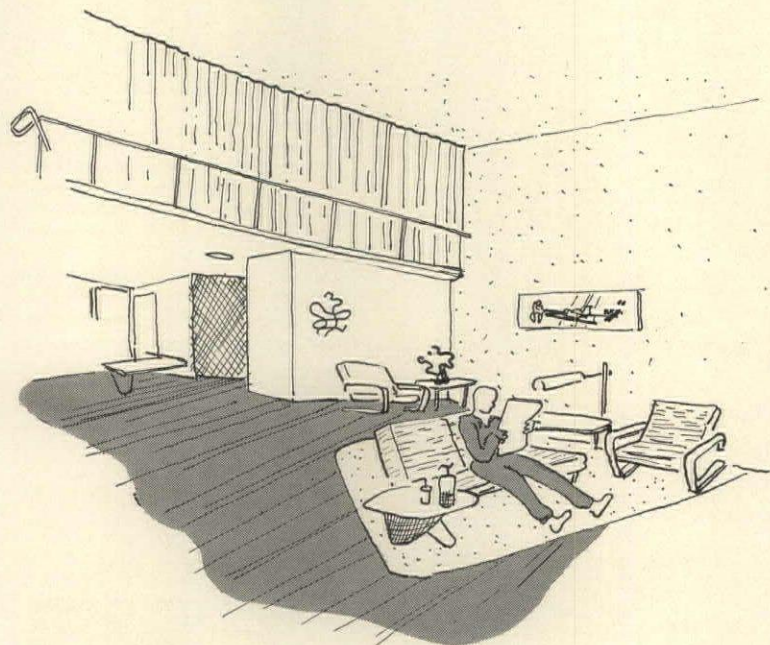
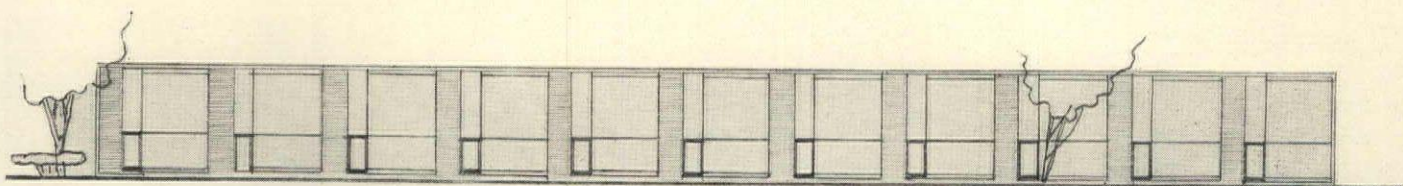
#### JOSEPH AMISANO



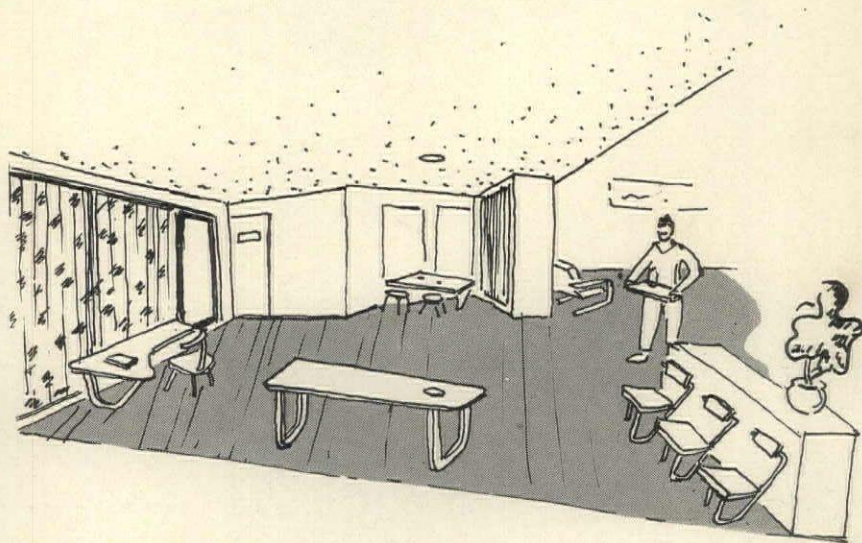
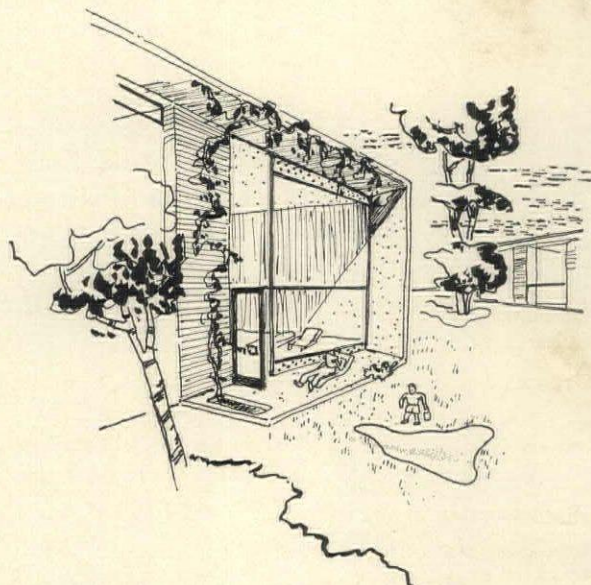
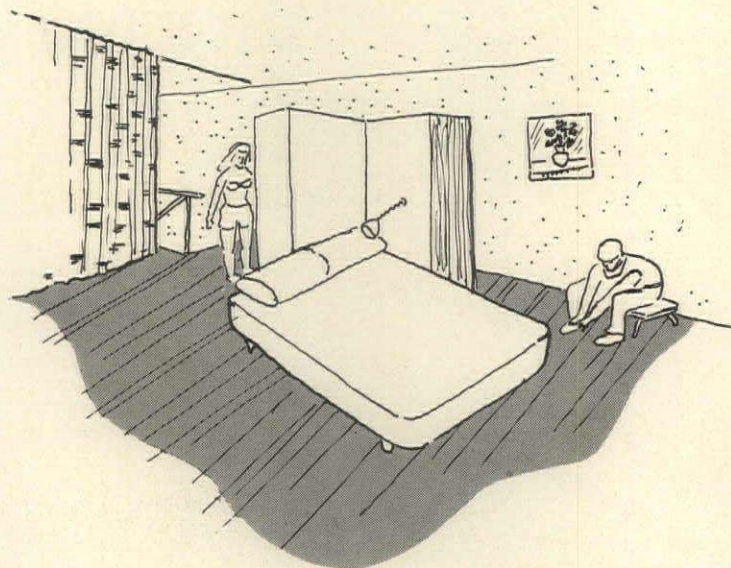
Designer, New York, N. Y., he studied at the Pratt Institute Architectural Clinic, and worked for a time for architects Harrison, Foulhoux & Abramovitz in New York and in the Canal Zone. He is presently employed on construction work for Pan American Airways.







Sketches show rear elevation of row-type building comprising 14 units (above), front of two-story living room (left), balcony bedroom (below, left), and kitchen and rear portion of living room (bottom of page). View below shows garden side of end unit.





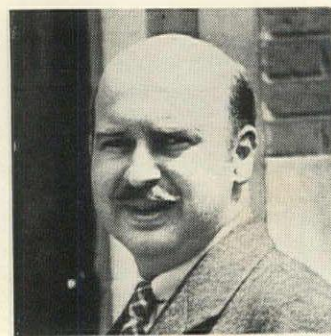
"To visualize the basic requirements of the house of 194x, one must take into account both current and prewar trends. In the prewar period one talked of the city problems resulting primarily from deficiencies in housing and land overcrowding. The increase in automobile travel established a trend toward the reorientation of the house away from the street. Industry developed mass-production techniques and is now increasing them. New materials are produced in growing amounts. Regulations and restrictions are increasing to a point where individuals will eventually yearn to reassert themselves and look for opportunity for individual expression.

"Up to the present, prefabricated housing has taken the same pattern as the early automobiles, which imitated horse-drawn vehicles and handicraft techniques. In the future, appearance will be influenced by production methods. In this scheme, I am proposing the simplest and most easily divisible shape as a basic form; a prism consisting of a multiple of cubes. The system has ample room for the expression of individual needs and fancies.

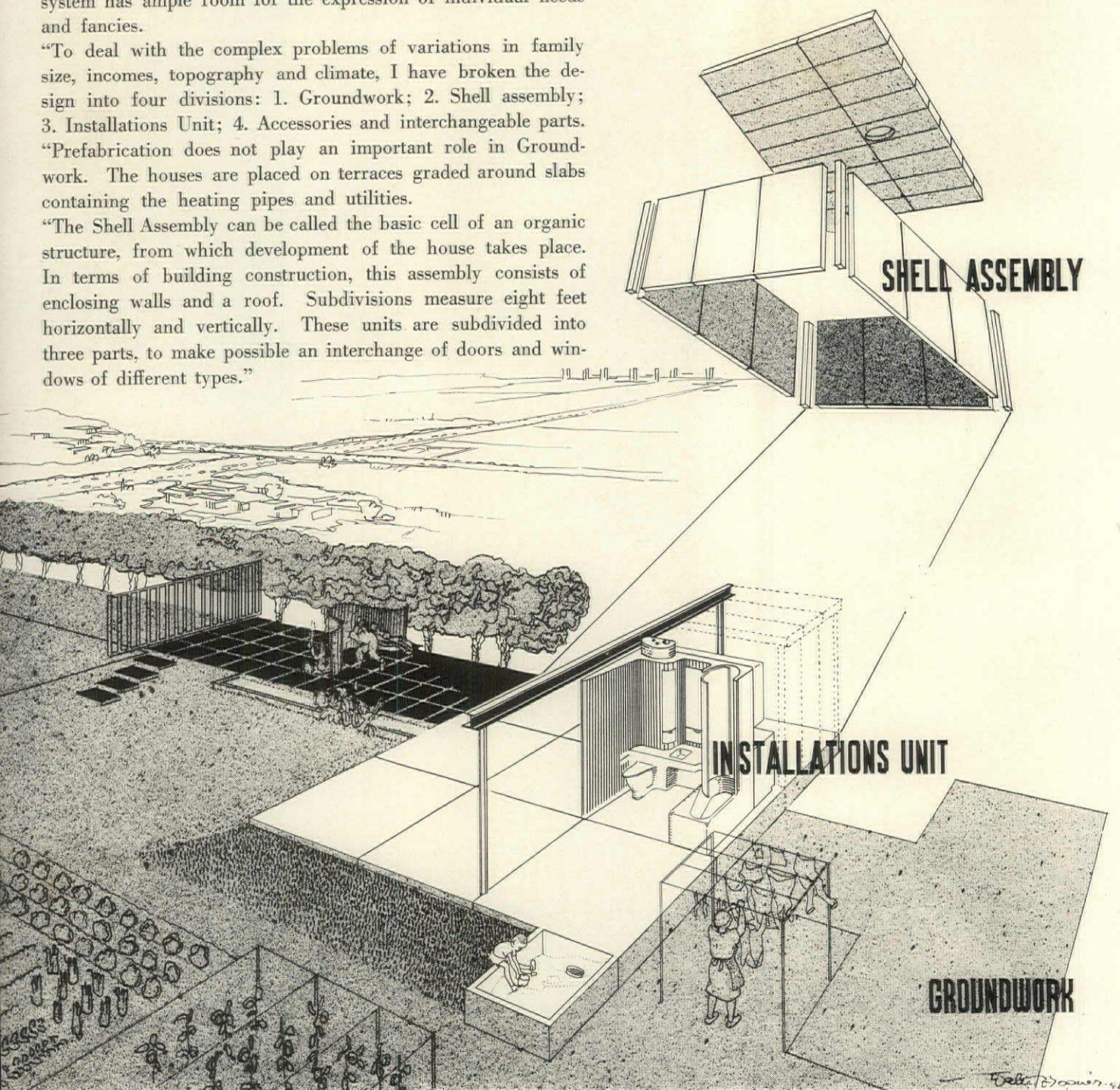
"To deal with the complex problems of variations in family size, incomes, topography and climate, I have broken the design into four divisions: 1. Groundwork; 2. Shell assembly; 3. Installations Unit; 4. Accessories and interchangeable parts. "Prefabrication does not play an important role in Groundwork. The houses are placed on terraces graded around slabs containing the heating pipes and utilities.

"The Shell Assembly can be called the basic cell of an organic structure, from which development of the house takes place. In terms of building construction, this assembly consists of enclosing walls and a roof. Subdivisions measure eight feet horizontally and vertically. These units are subdivided into three parts, to make possible an interchange of doors and windows of different types."

WALTER F. BOGNER

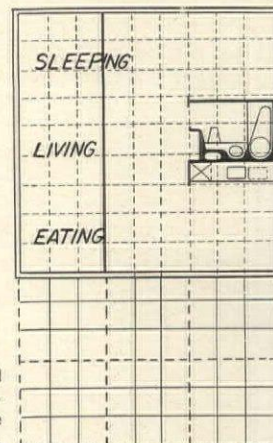
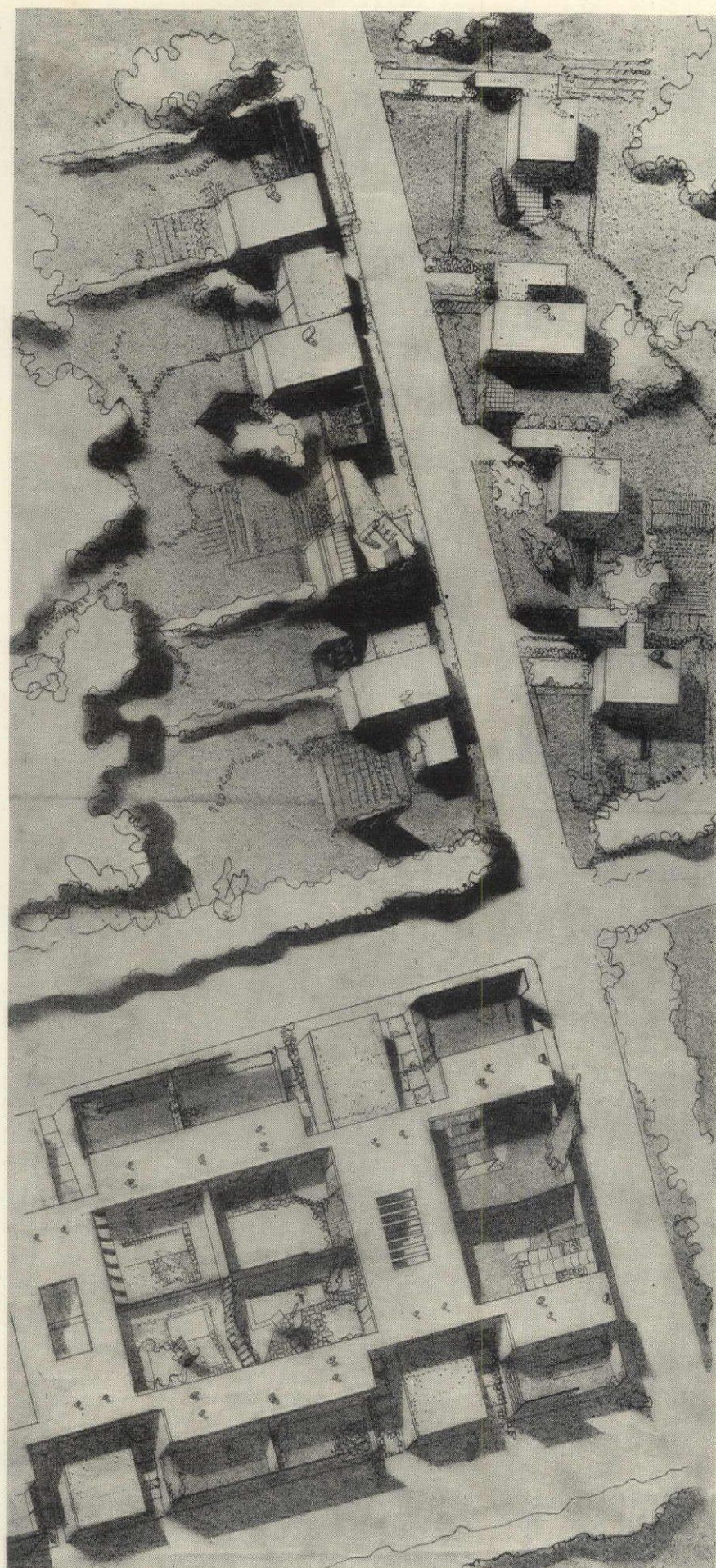


Born in 1899 in Providence, R. I. Trained in architecture in Austria, and at Harvard, where he won the Rotch Traveling Fellowship. Since 1928 he has been engaged in independent practice and the teaching of architecture at Harvard. Now architect for a war industry, entrusted with the improvement of plants and equipment.

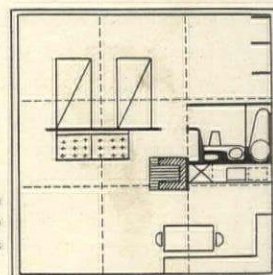




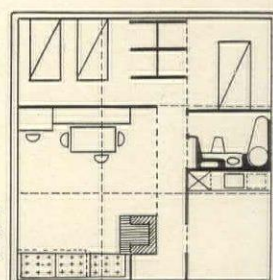
"The drawing below shows the variety obtainable in group combinations. Privacy and the isolation from service yards and highways were considered throughout. There appears to be no objection to flat-roofed houses save those established by habits of thinking. The charm of many existing towns in Mexico, the Southwest and the Mediterranean, rests in the uniformity growing out of the use of the flat roof."



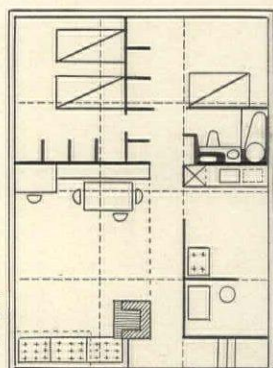
"Unit system of Shell Assembly, showing subdivision of the floor space by the Installations Unit."



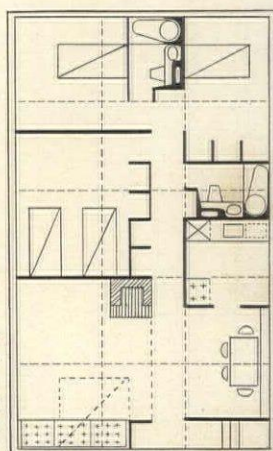
"The basic plan, with the addition of accessories to provide living facilities for a couple."



"The same plan as the one directly above, but rearranged to take care of a child as well."

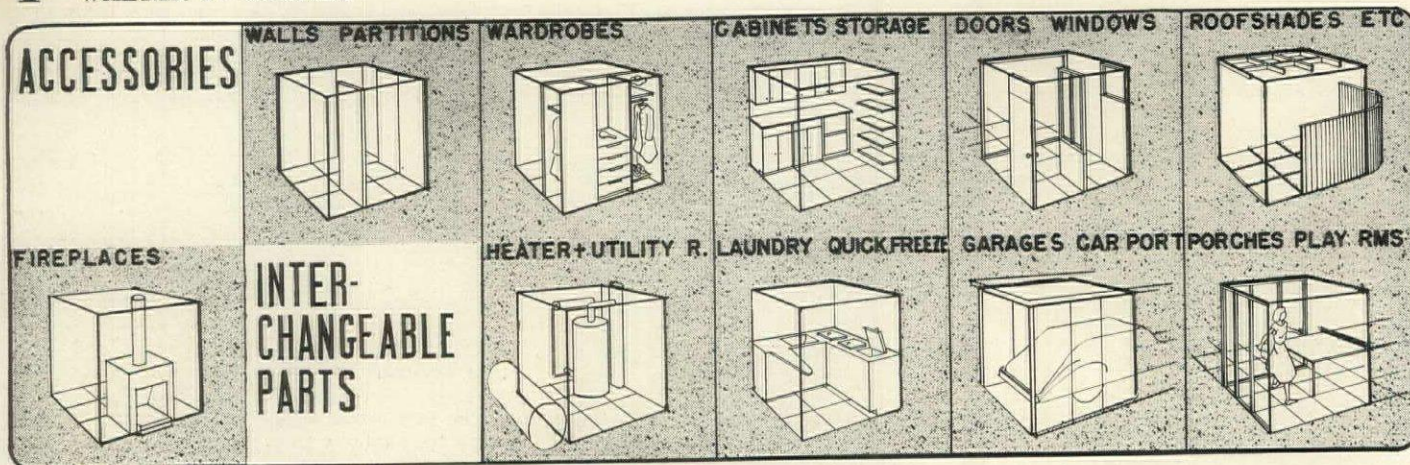


"An enlargement of the basic plan to provide for greater comfort for a family with one child."



"A house for a couple with two children. The basic plan has been almost doubled in size, and one bath and a dining space have been added."

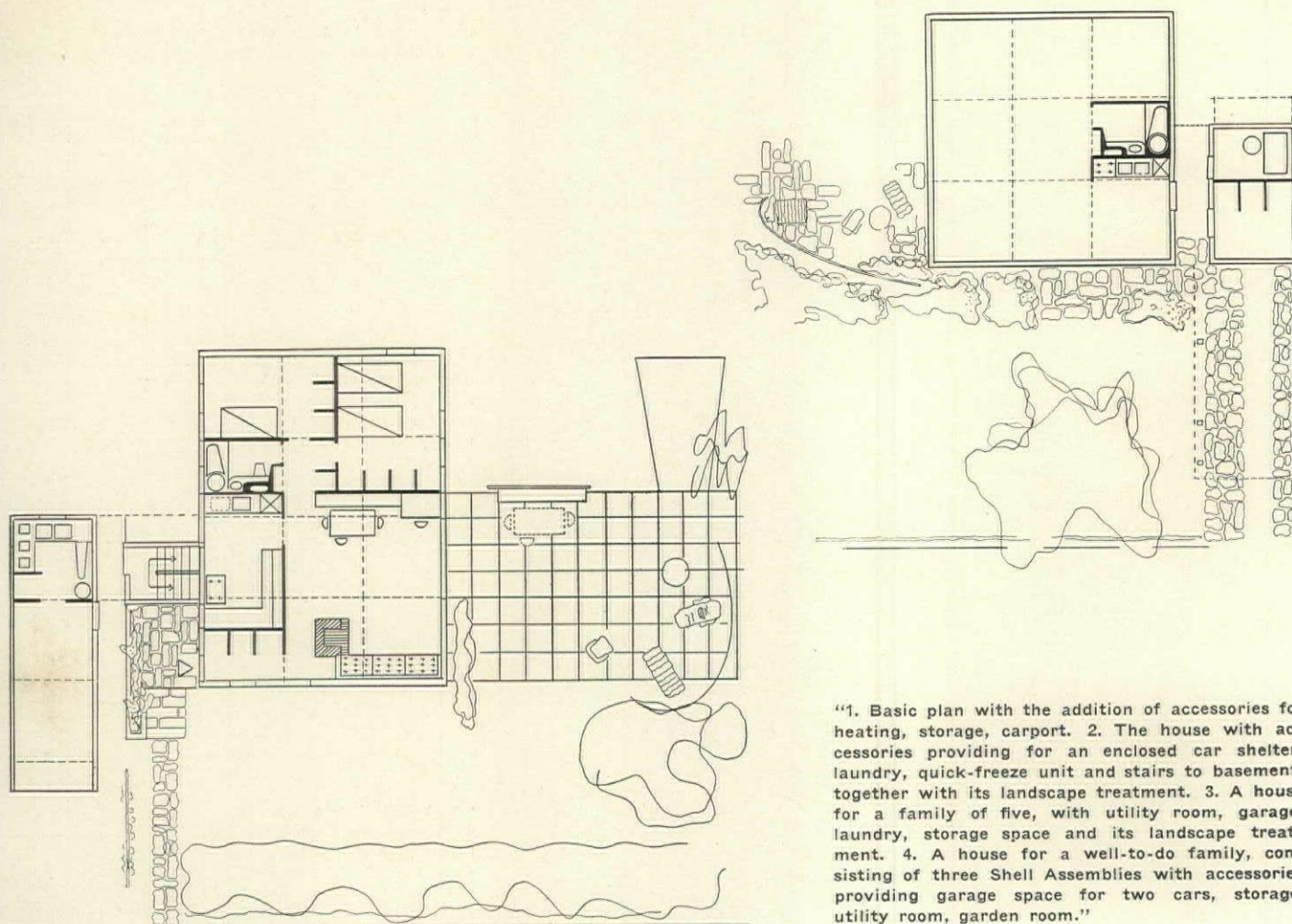




"The Installations Unit occupies an 8' cube and contains the bathroom fixtures, piping for a kitchen, laundry or second bathroom, the drainage and electric lines. The position of the Installations Unit provides for areas allocated to living, eating and sleeping. A Shell Assembly combined with the Installations Unit provide the basic shelter need. This combination can be used by itself for a variety of purposes, such as a summer cottage or a camp.

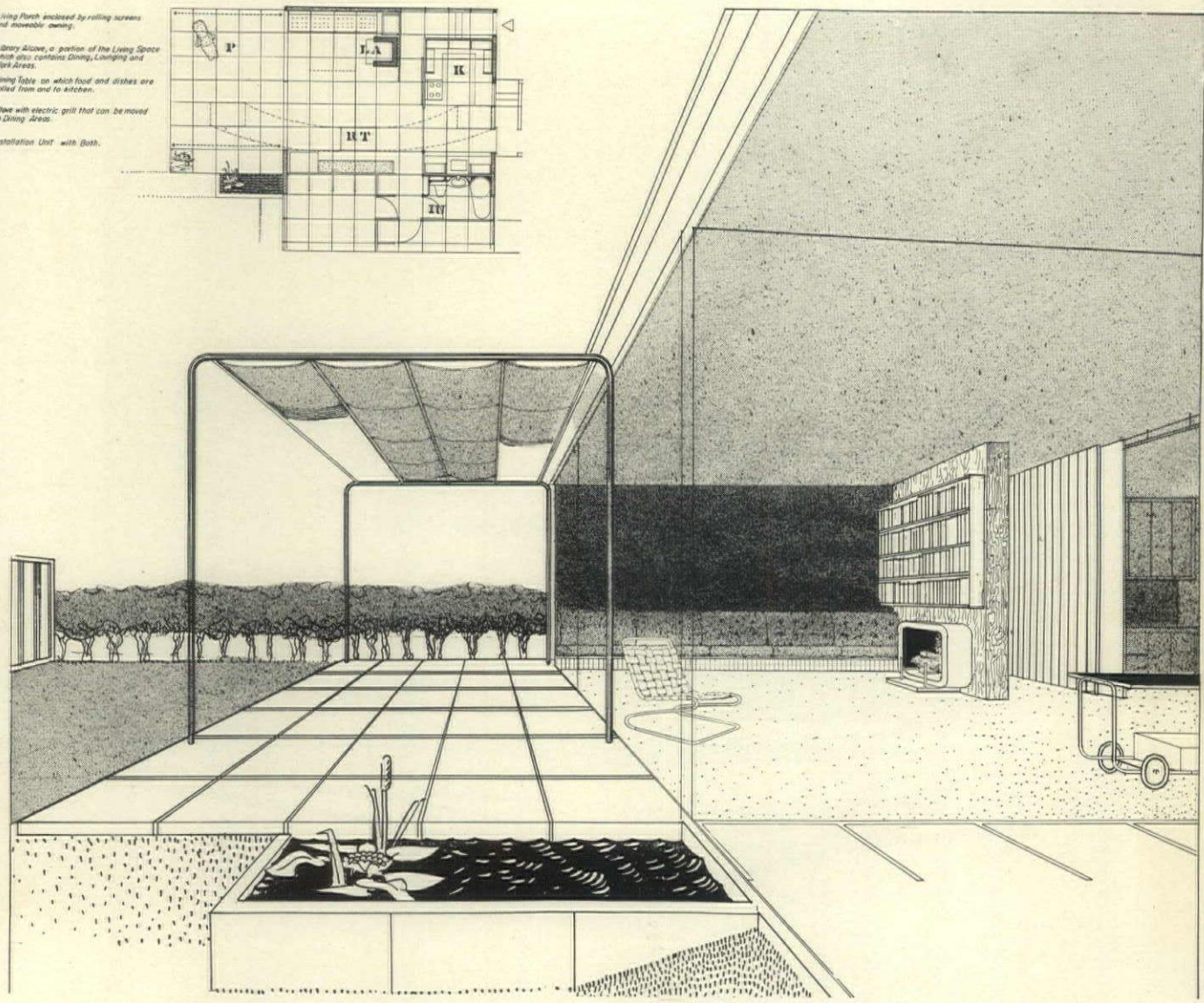
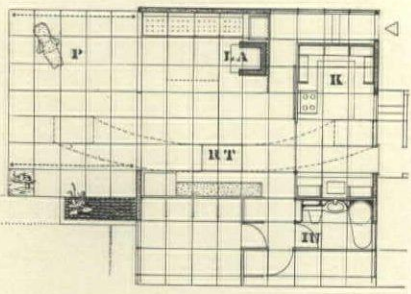
"The Accessories and Interchangeable Parts provide for

divisions within the shell. The absence of interior supports makes for perfect freedom in placing. One of the drawings shows a few examples of the variety that can be obtained. It is assumed that these Interchangeable Parts will be designed to take into account all technical refinements which can be introduced into buildings. They aim to provide all conveniences and comforts. These accessories may be considered like furniture, bought at any time or rearranged periodically to suit changing family needs."



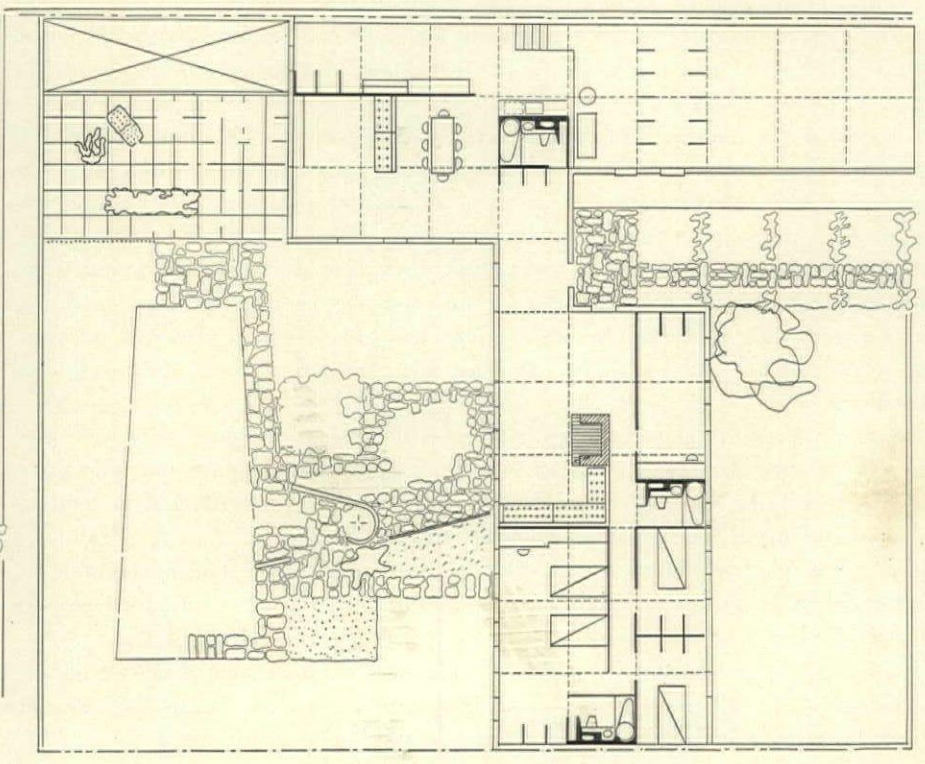
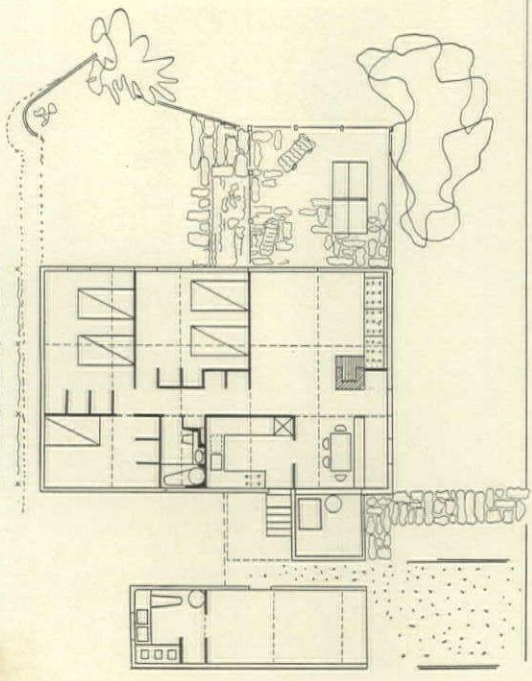


- P** Living Porch enclosed by rolling screens and movable awning.
- L.A.** Library Alcove, a portion of the Living Space which also contains Dining, Lounging and Work Areas.
- RT** Dining Table on which food and dishes are rolled from and to kitchen.
- K** Stove with electric grill that can be removed to Dining area.
- IU** Installation Unit with Bath.

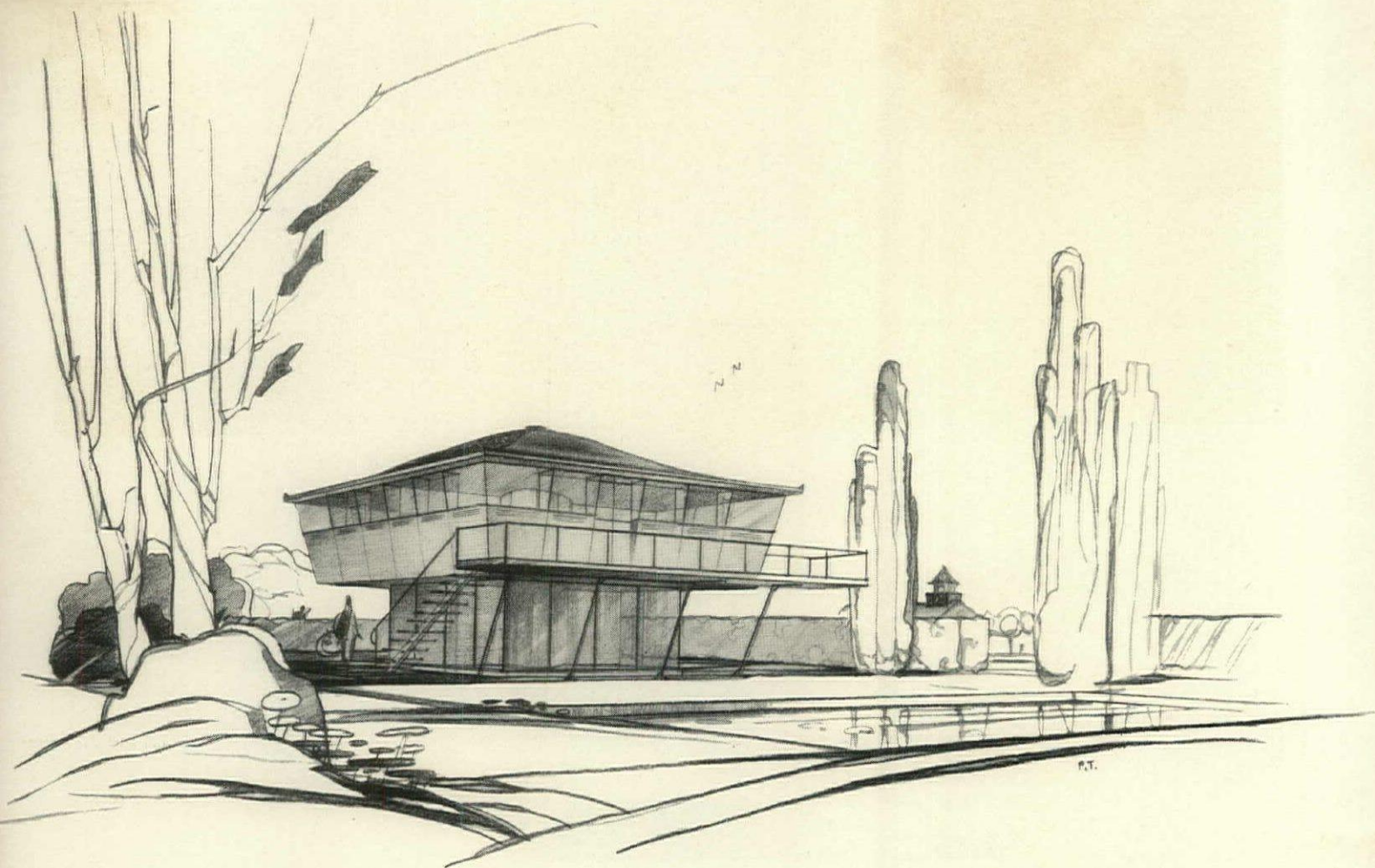


4

3







"Every element of construction in this house is possible today. The prohibitive element is cost. However, it is logical to assume that with new metals and plastics and with the conversion of factories and with new methods of mass assembly, costs will be reduced.

"Electric power will be abundant. Mass production and inventiveness will make many exclusive items of today available to all tomorrow. Hence this house, small in size for facility of construction and maintenance, complete in every detail for greater comfort of living.

"All mechanical elements are designed in removable units which may be replaced as they become outmoded. All room divisions are formed by these units. Built-ins (see drawings) decrease the floor area otherwise required. The house was elevated on piers for a number of reasons. The piers will fit any topographical conditions or requirements of orientation; they also diminish the foundations, reduce ground coverage and eliminate below-grade rooms. Raising the living floor increases the apparent size of the house, and provides both views and privacy. Sheltered areas for play and car parking are provided without additional construction.

"Exterior walls were sloped to facilitate construction and joining, to furnish pipe and wiring space without increasing the floor area, to reduce glare and reflections, and to deflect the sun and rain. Construction may be prefabricated in sections and units of metal, plastic, formed woods, etc.

"Lighting is photo-electrically controlled to balance exterior lighting conditions. Additional direct power and lighting may be obtained from a continuous plug-in strip 18 inches above the floor.

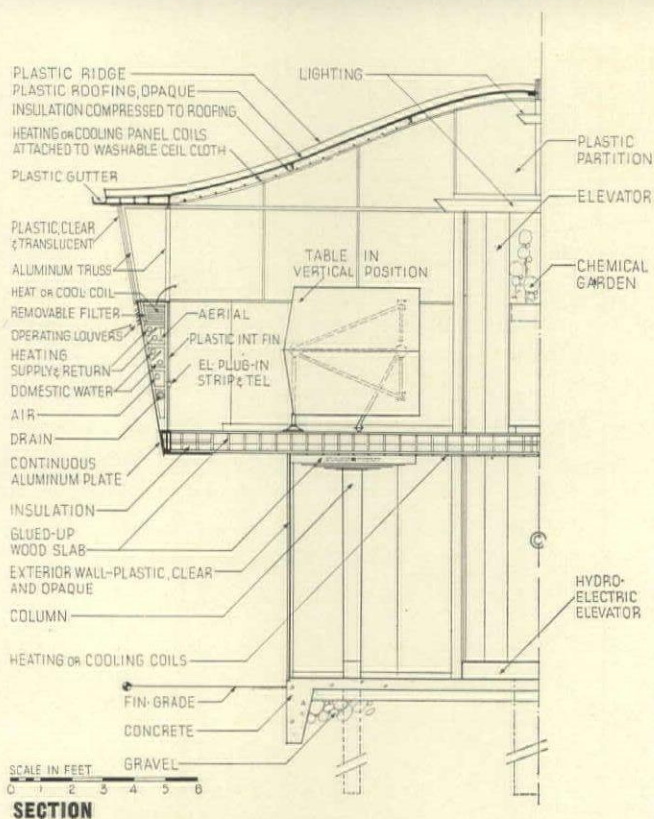
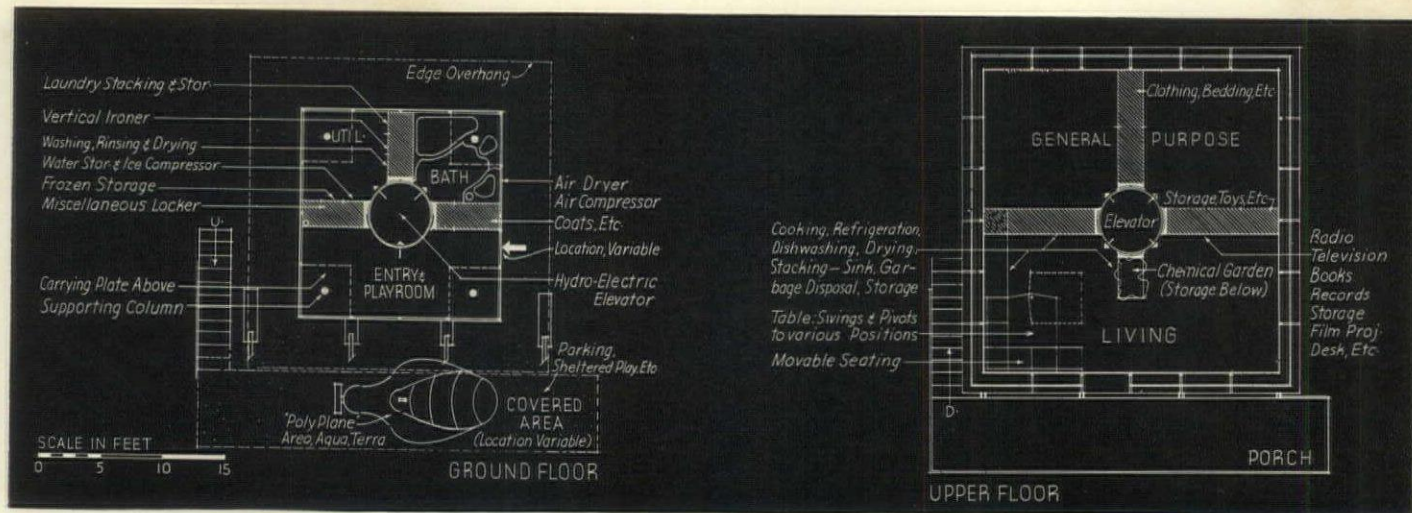
"The hydro-electric elevator is the core of the house and the center of all circulation, horizontally as well as vertically. The elevator cab or floor forms the passage. Doors to rooms are electrically operated.

#### PAUL THIRY

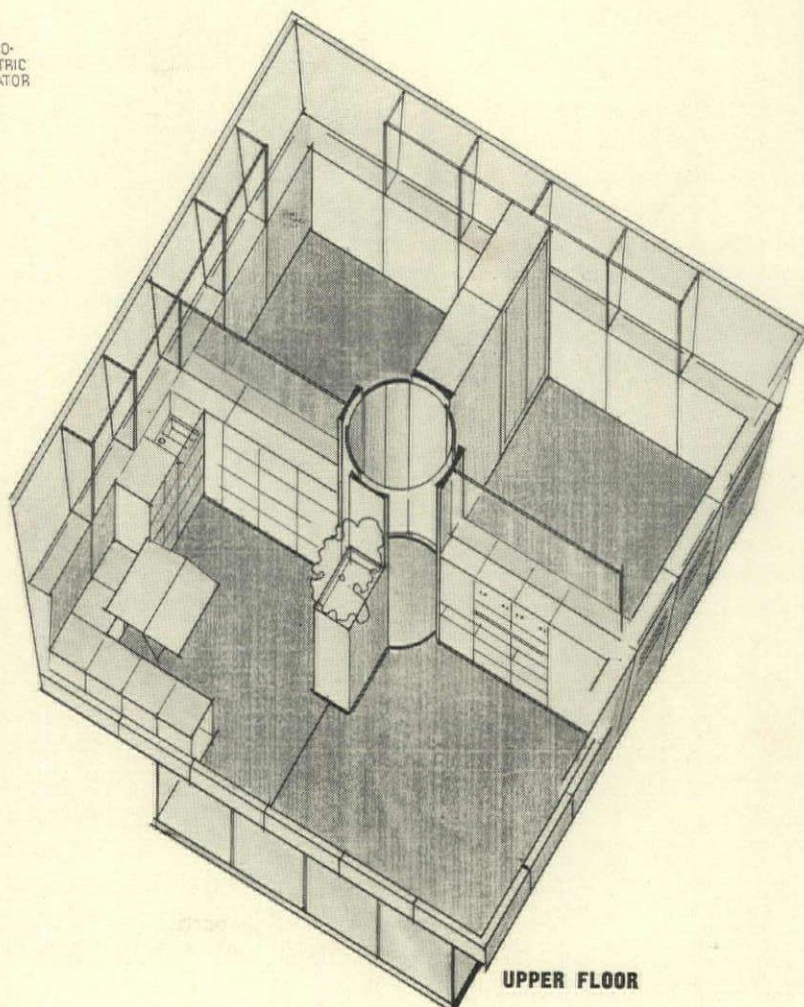
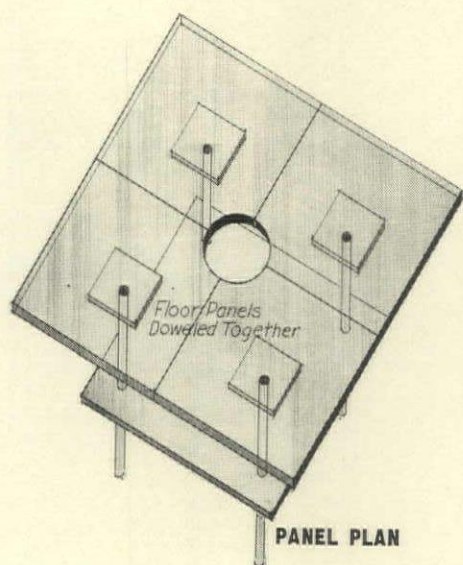


Born in Nome 37 years ago. Educated at the University of Washington and the Ecole des Beaux Arts at Fontainebleau. Licensed in 1929 and has been in practice in Seattle, designing houses, churches, schools and commercial buildings. At present co-architect for Government housing and community facilities in Seattle and Renton, Washington. Also carrying on architectural work under the jurisdiction of the U. S. Army Engineer Office.

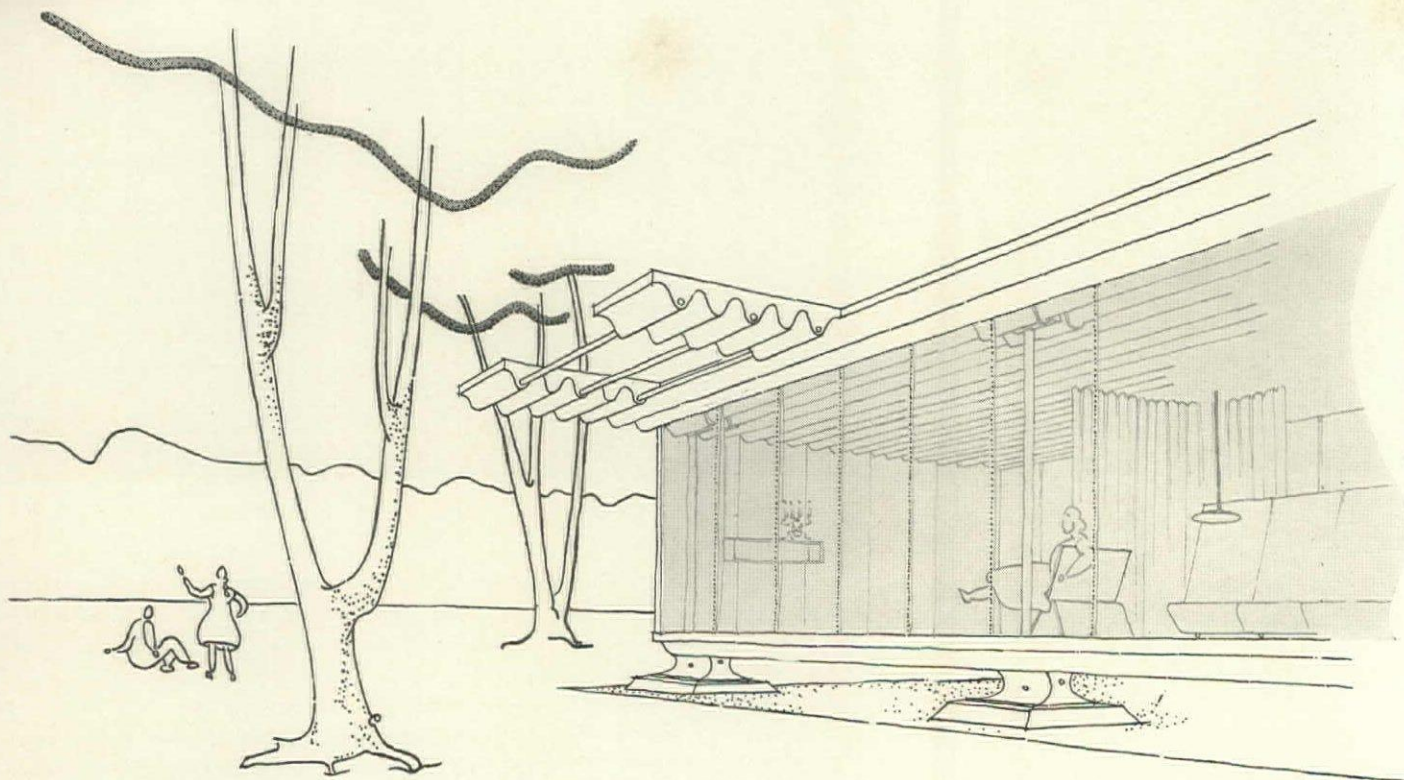




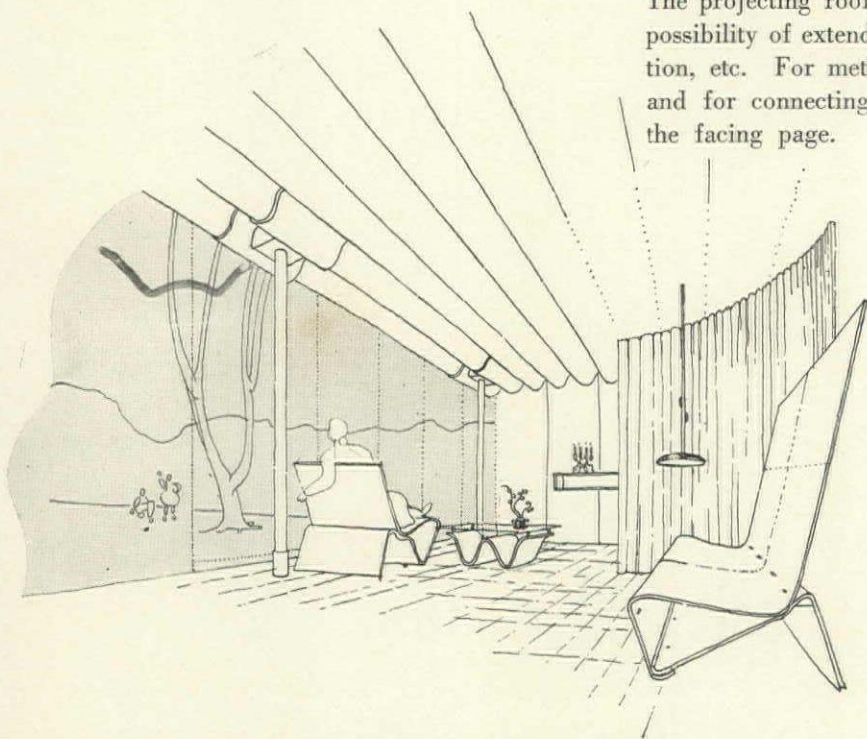
"The 'Environditioning System,' developed in collaboration with Erwin Weber, mechanical engineer, takes care of both heating and cooling. It consists of a rotary driven compressor which heats the refrigerant. After the refrigerant has passed through the heating system it passes through an expansion valve to the evaporator element, thus taking care of refrigeration requirements. This so-called reverse refrigerating cycle was first proposed by Clerk Maxwell, the Scotch physicist, over 100 years ago. "Due to constant room temperatures and controlled air intake, it is proposed to use washable silk air cushions for sleeping. These may be deflated and stored during the day, releasing bedrooms for other daytime uses."







"The house on pintels is an easily demounted structure since the pintels are detachable. The only loss in taking down such a house would be the built-up roofing and the footings. An advantage of the elevated first floor is the elimination of drainage problems. The projecting roof form shown in the sketch merely indicates the possibility of extending the roof to form overhangs, terrace protection, etc. For methods of installing more permanent foundations and for connecting the house with the terrace, see drawings on the facing page.



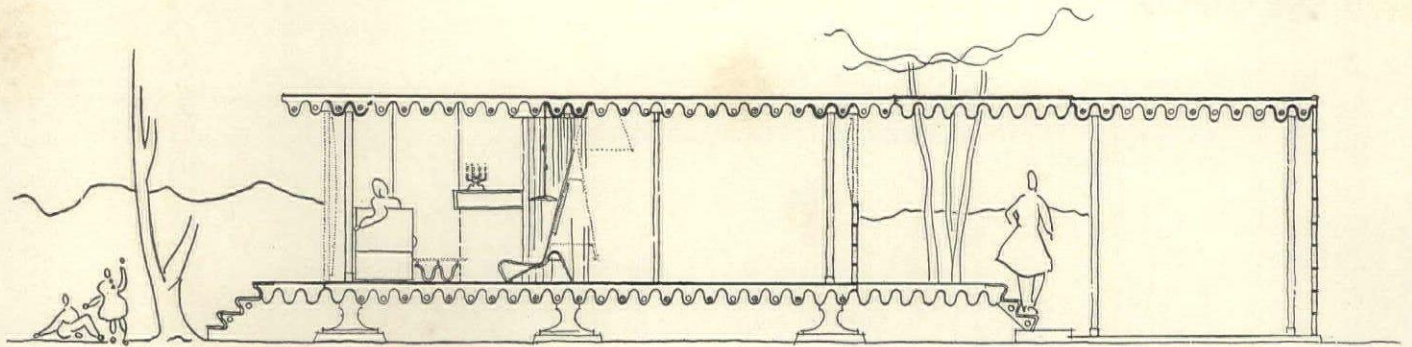
"A view of the living room. The sliding plastic doors disappear into the ceiling due to the fluted form into which they frame. Curtains and blinds would likewise seem to disappear. Result: an interior of extreme delicacy and lightness. Ceiling contains lighting chases from which fixtures can be hung at random. Tracks for curtain space dividers would be fastened to the lower part of the flutes. The floor, finished in a composition of rubber and asbestos, contains plugs for lamps and lugs for movable partitions. Walls are non-bearing, but stiff enough to withstand the buckling effect produced by hung furniture."

CHAS. H. WARNER, JR.

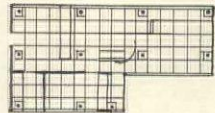


Born in Yonkers, N. Y., in 1911. While at Columbia he won several prizes for design and the Alpha Rho Chi Medal. This year he won the traveling fellowship offered annually by Columbia. He has been teaching at Cornell for the past two years, and is at present working on the Naval Training Station at Sampson N. Y.





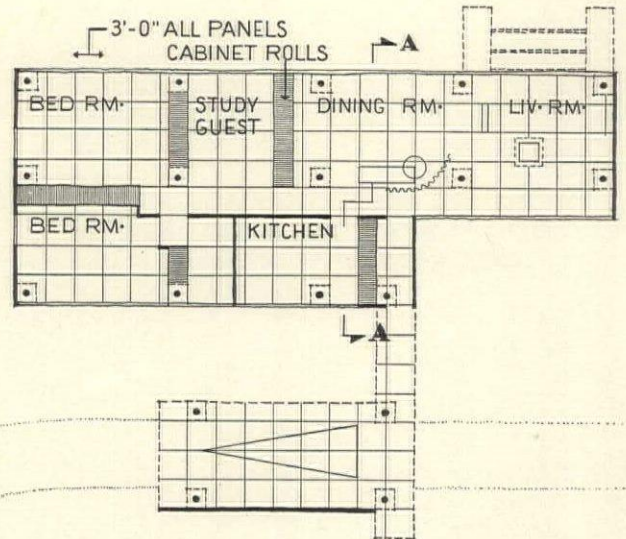
SECTION A-A



CONTRACTION

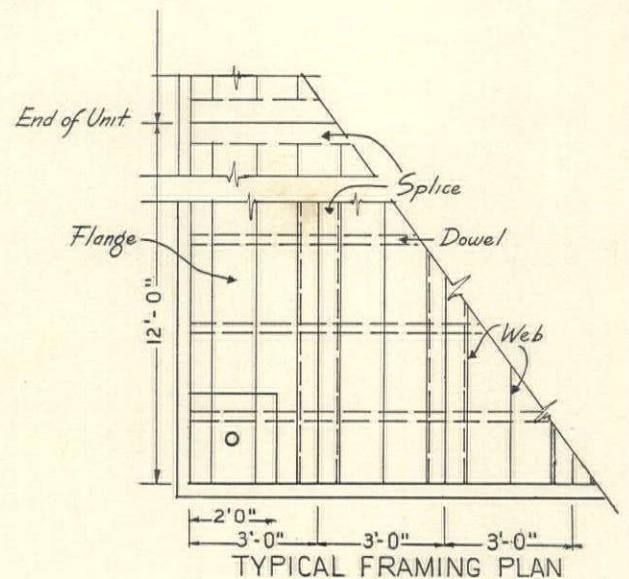
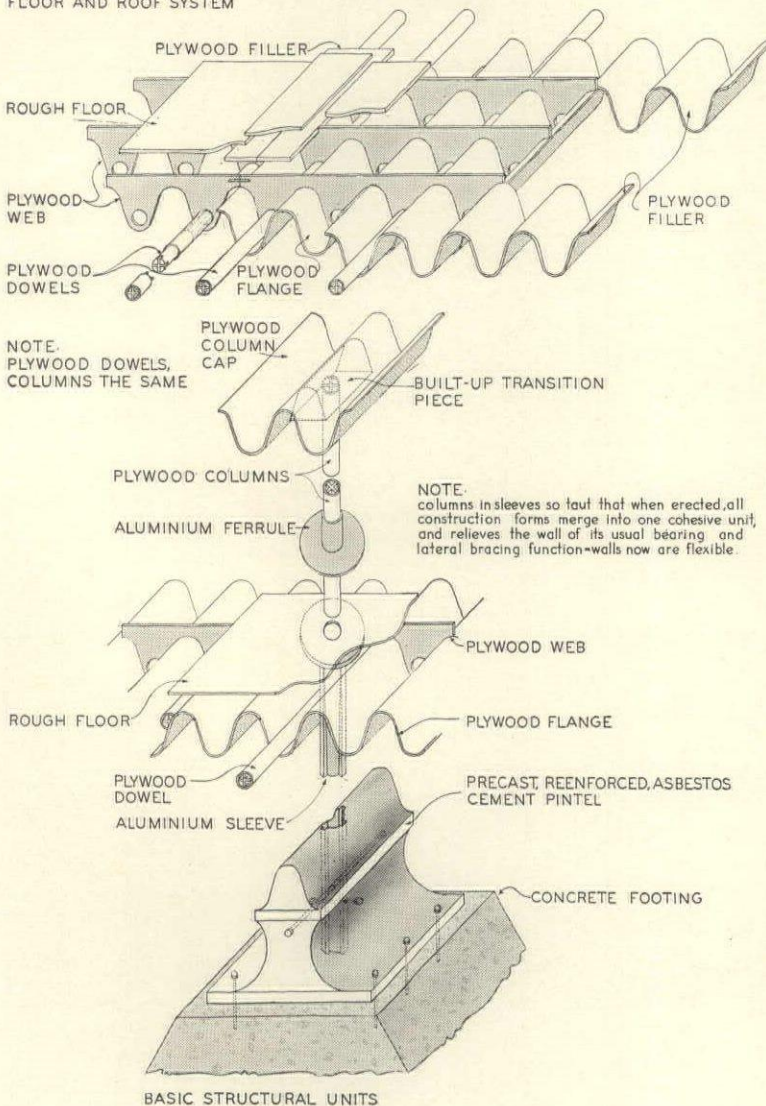


EXPANSION

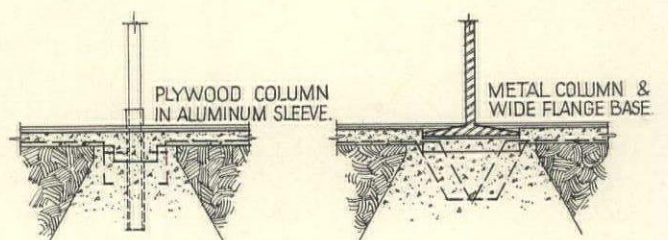


PLAN

FLOOR AND ROOF SYSTEM

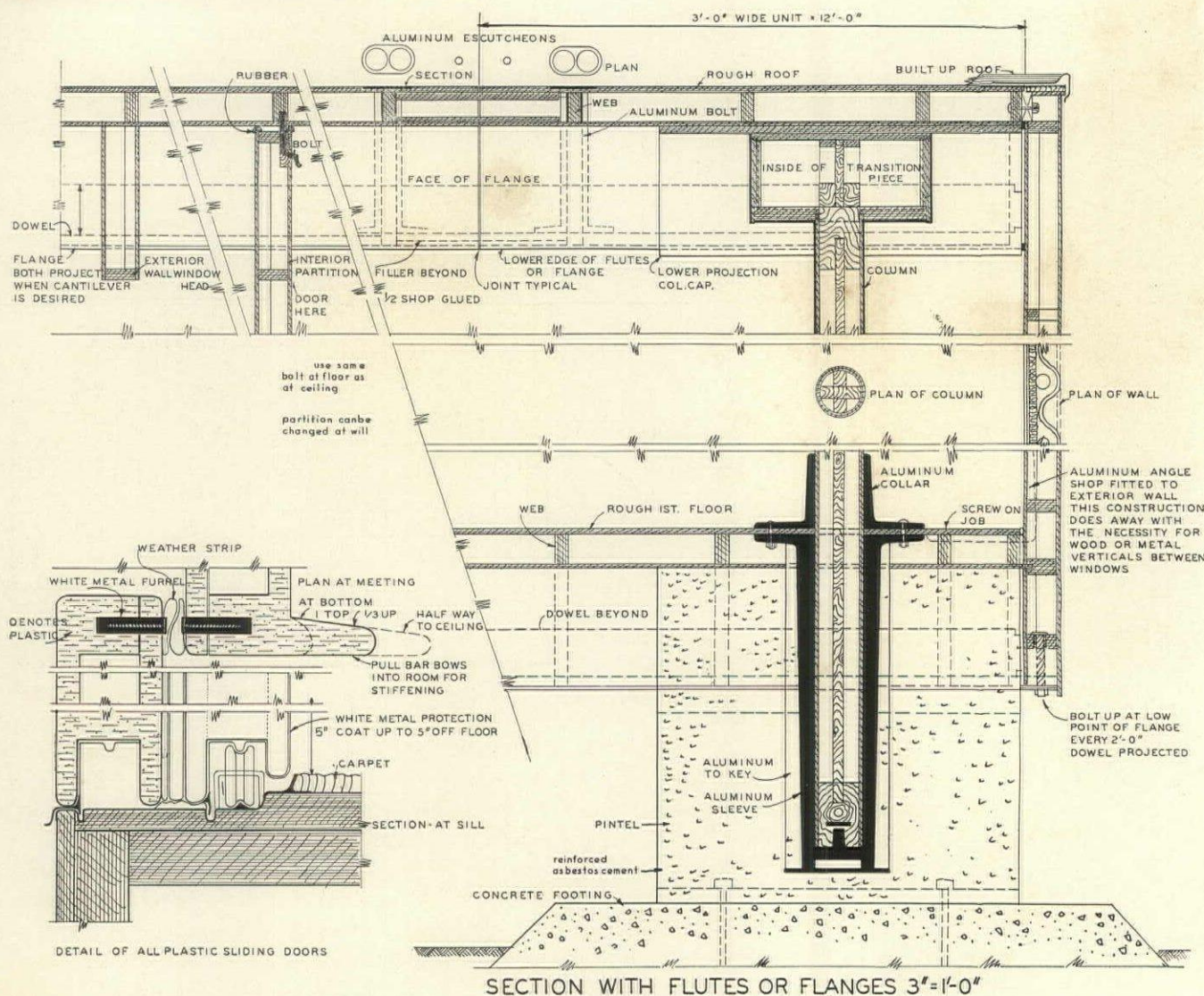


TYPICAL FRAMING PLAN

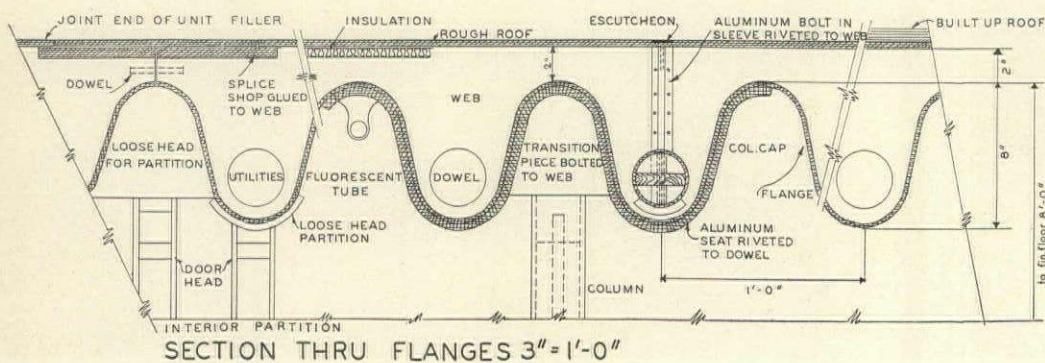
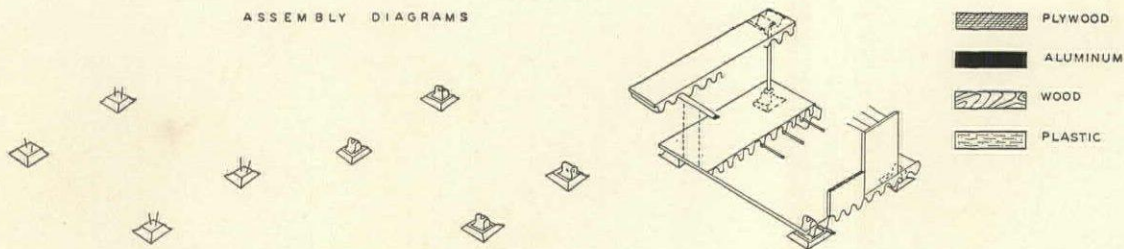


ALTERNATE FOOTING DETAILS FOR SLAB CONSTRUCTION





ASSEMBLY DIAGRAMS



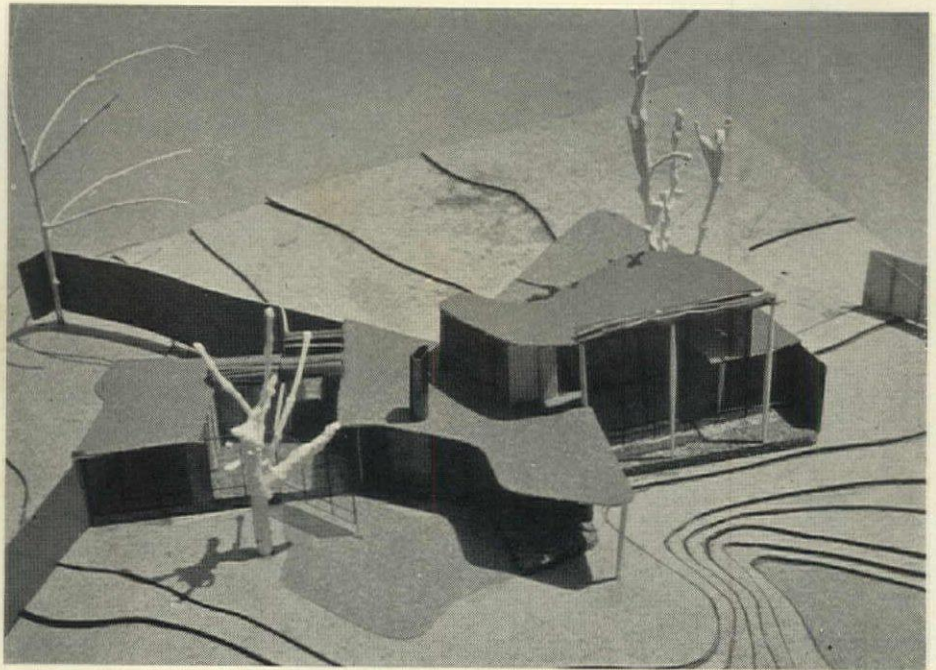
NOTE:  
ceiling height  
is low due to  
fact that there  
is only about 2"  
between roof  
and ceiling



RALPH RAPSON AND  
DAVID B. RUNNELLS



Ralph Rapson, (left) is 26, now working in the office of Saarinen and Swanson, Detroit. He graduated from the University of Michigan in 1938 and went to Cranbrook on a scholarship to study under Eliel Saarinen. He has placed in a number of national competitions, and shared first prize with Eero Saarinen in the competition for a National Theater and Fine Arts Building. David Runnells, 28, is also a former Cranbrook student and a member of the office of Saarinen and Swanson. He studied at the University of Illinois, won a traveling fellowship in 1938, and was a special student at the University of Stockholm.



"Basically this fabric house is an insulated tent, all roofs and walls consisting of insulated fabric panels that allow the utmost flexibility in planning and design. The "Roll-fab" wall permits Mr. A. with a wife, two children and a particular site and living requirements practically to mold his house to suit his requirements. Mr. B., a professional man with no children and entirely different living requirements and site, can just as easily wrap himself in his own individual shelter with the same material.

"From this it is easily seen that the basic purpose of the roll fabric wall and roof is to allow free and complete planning for infinitely varied human requirements. The fabric is placed over a skeleton of light stamped metal. The structural members are a system of tele-pipe similar to present-day airplane sections. A tele-pipe system allows for almost any placing of walls and roofs.

"A mechanical package panel contains all the necessary bathroom, kitchen, heating and electrical equipment. Radiant floor heating panels are integrated into the construction and are demountable. Electrical panel boxes are also in the floor. The floor is chemically treated tamped earth on six inches of crushed rock, covered with any desired material."

## BASIC CONSTRUCTION

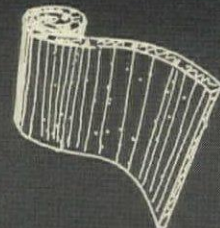
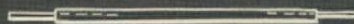


POST SPREAD AND COLUMN  
AND PILE eliminate need  
of foundations

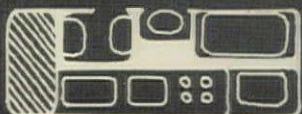


GIRDER stamped light  
metal sections

TELESCOPIC TELE-PIPE POSTS  
AND TELE-PIPE BEAMS of  
standard length permit un-  
limited wall heights and  
conditions

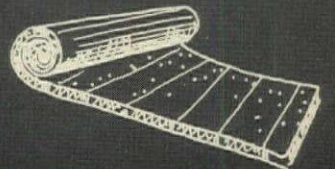


ROLL-FAB WALL  
prefabricated  
for any con-  
dition

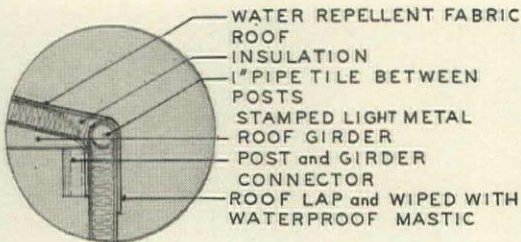
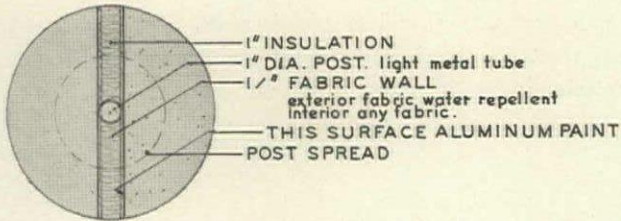
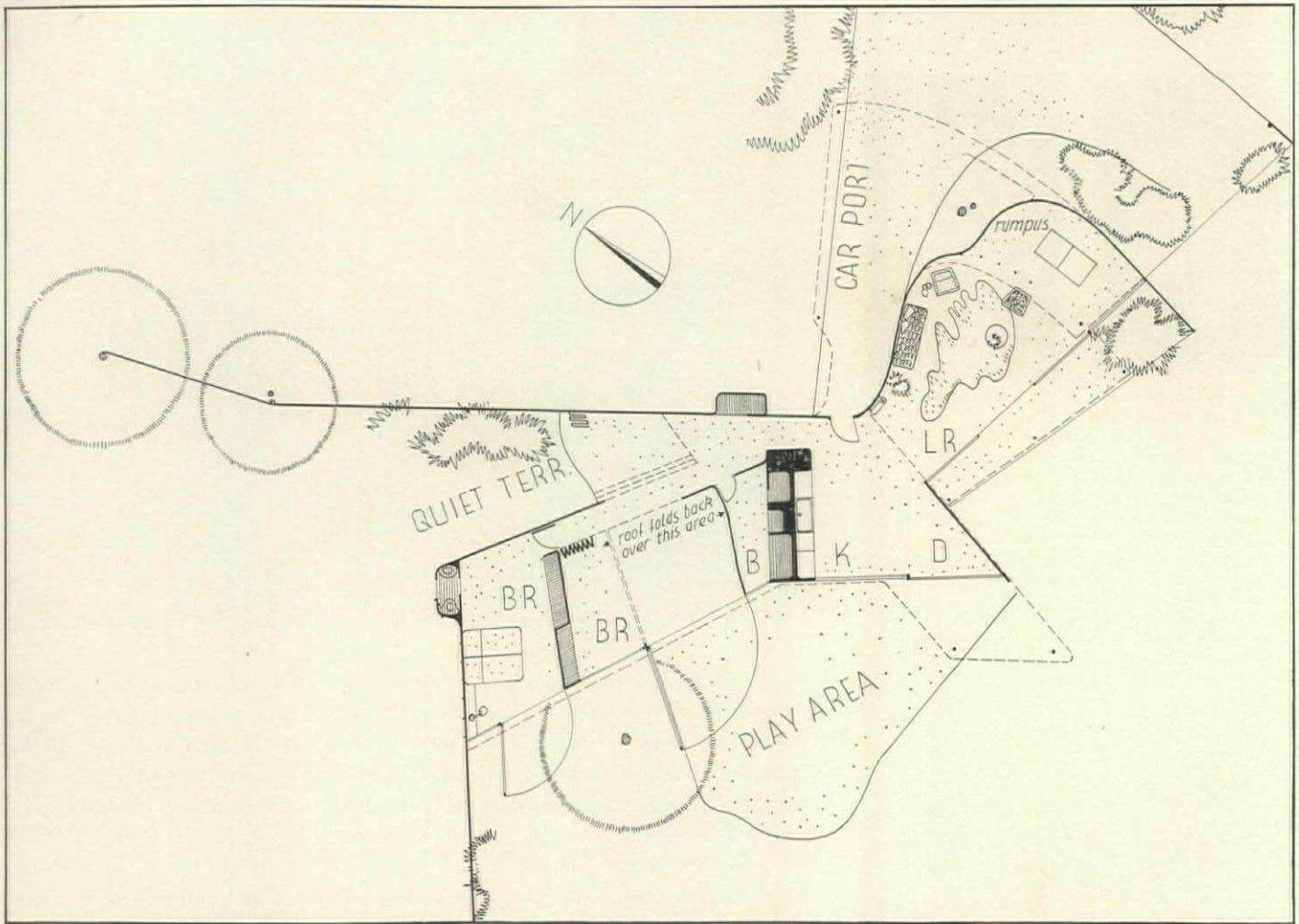


MECHANICAL PANEL con-  
tains all necessary  
plumbing, kitchen,  
heating and electrical  
equipment

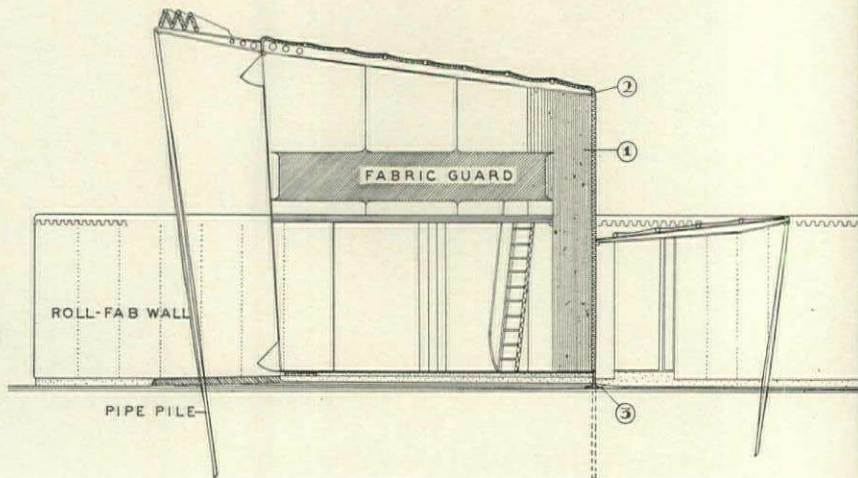
ROLL-FAB ROOF Pre-  
fabricated with  
telescopic pipe ribs  
for any roof connec-  
tion



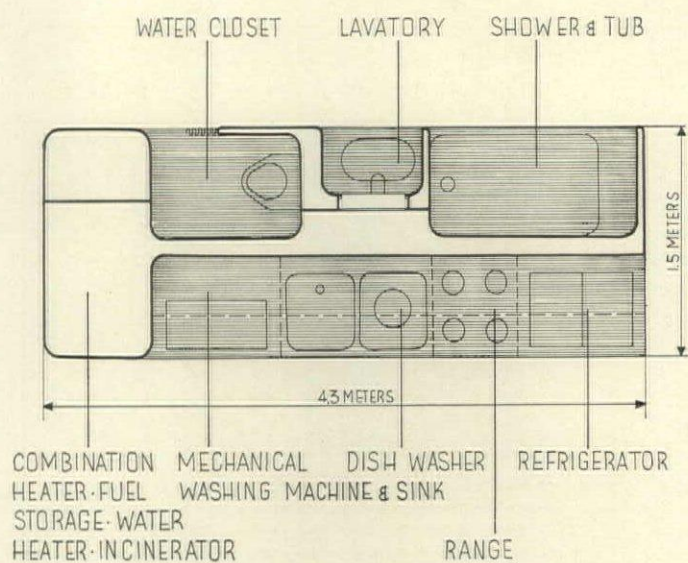




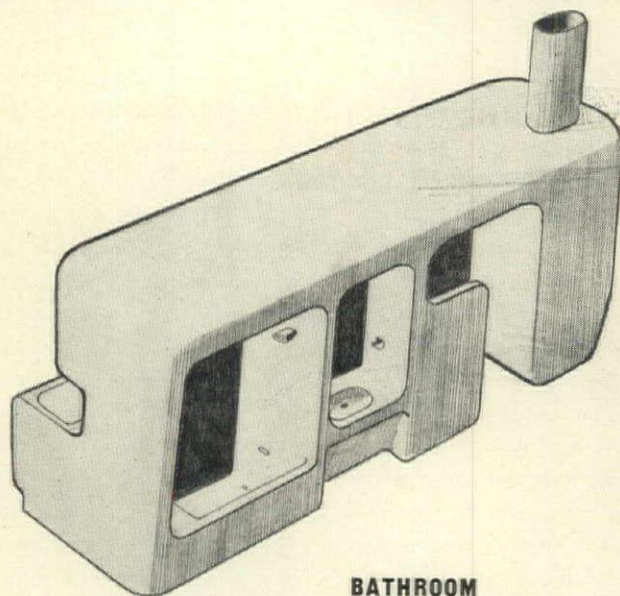
The drawings on these pages show details of the proposed pipe and fabric construction, and a suggested plan which reflects in an interesting manner the flexibility of shape permitted by the system. The scheme adopted for the packaged mechanical unit leaves little choice in the location of the bathroom, but it may be assumed that for larger houses separate bath units could be provided without difficulty. As developed on the facing page, the mechanical core is extremely compact, measuring about 5' x 14'. The basic plan, more conventional in its outlines than the scheme directly above, is shown at the bottom of the opposite page.



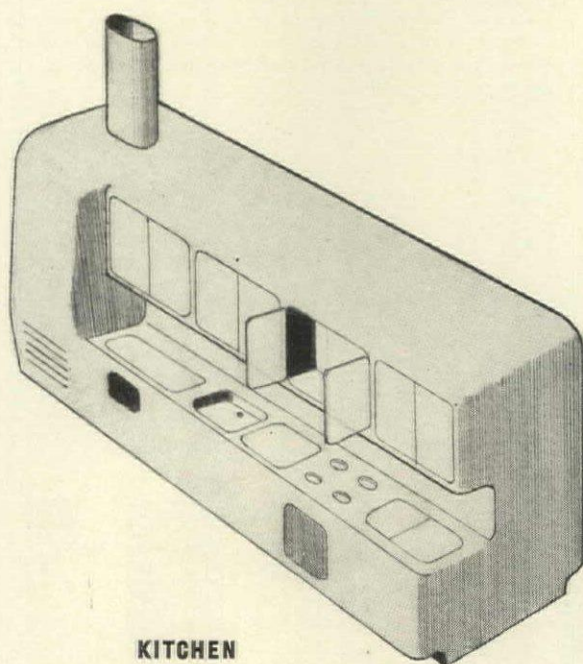




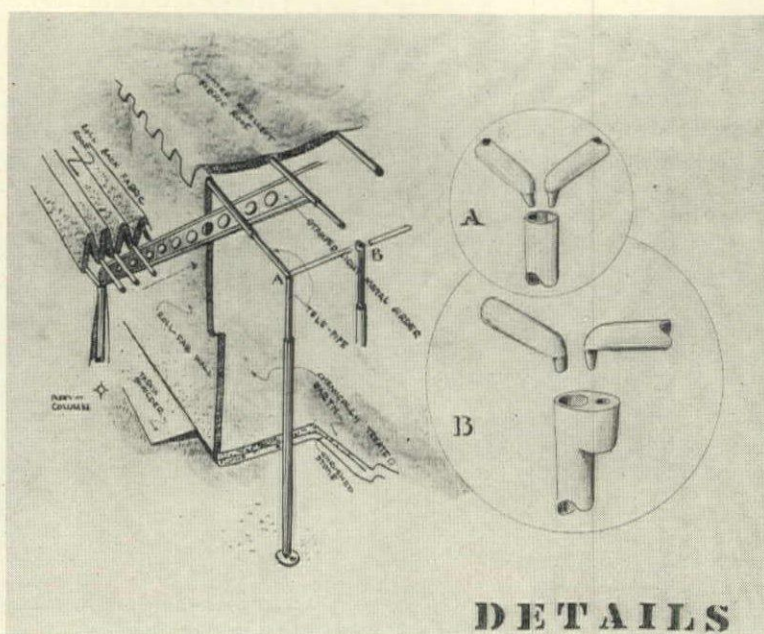
### PLAN



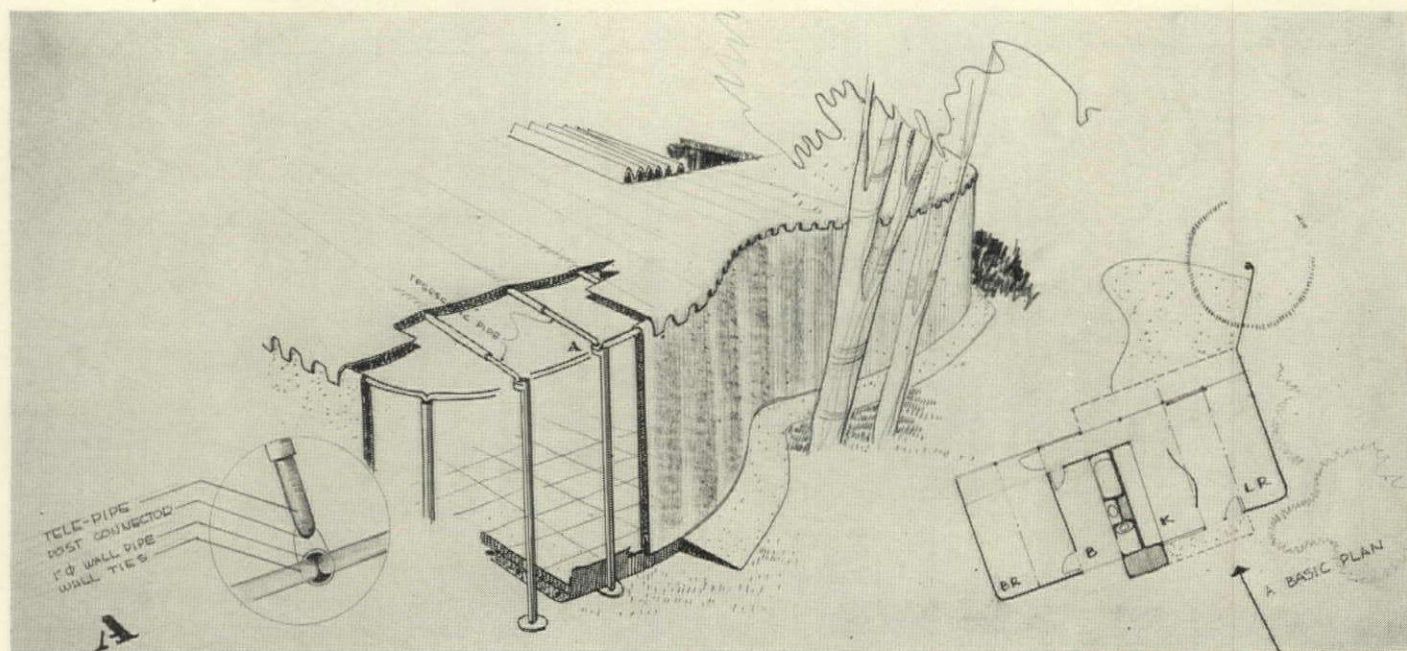
**BATHROOM**



## KITCHEN



## DETAILS





## ANALYSIS

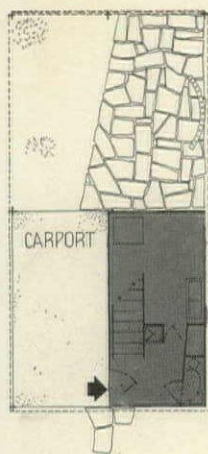
"These drawings represent only a statement of ideas. The major task, which justifies the machine-made house, will consist of thousands of working hours spent on the design of every detail which goes to make up the living unit. The principle underlying these plans is this: all services are completely standardized and housed in a two-story steel box, topped by an air-conditioning system. This box contains a laundry-utility room on the street floor; at the upper level it contains the kitchen and bath. A dumbwaiter serves the kitchen. The living area is on the second floor to provide the best view and exposure and to simplify fitting the house to the grade. This living floor consists of floor and roof panels, 8' by 16', fitted into a framework of steel columns and beams. The walls, which do not carry weight, are made of 4' by 8' panels of plastics or aluminum. While the entire floor area is opened up for use during the day, it was decided to provide degrees of privacy by the interposition of movable prefabricated closets, 2' by 4' by 8' in size. Wood was rejected as a structural material, since it does not lend itself well to truly industrial methods. For all types of finishes, interior and exterior, plywood veneers, however, will help to humanize the house. The Bemis 4' module has been used throughout.

"The living area consists of the following spaces: 1. Night, master bedroom; day, study. 2. Living area. 3. Dining area. 4. Day, play or recreation room; night, children's or guest bedroom. 5. Carport. 6. Sandbox."

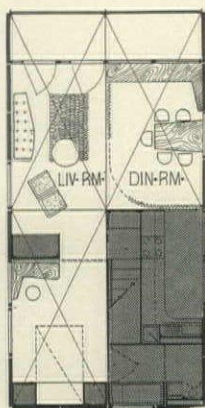
GEORGE DAUB AND PETER BLACH



After studying architecture at Harvard, Mr. Daub spent a number of years working in various offices, chiefly with Mellor, Meigs and Howe, Howe and Lescaze, and William Lescaze. He has been in independent practice since 1937. Work has been residential, commercial and industrial. Mr. Blach was born in Germany in 1920, educated in England, and a student of Serge Chermayeff for two years. He spent one year at the University of Pennsylvania, worked in the offices of Oscar Stonorov and Howe, Stonorov and Kahn, and has been with George Daub since early in 1942.

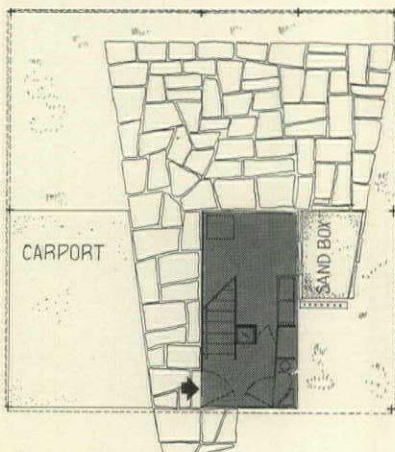


GROUND LEVEL

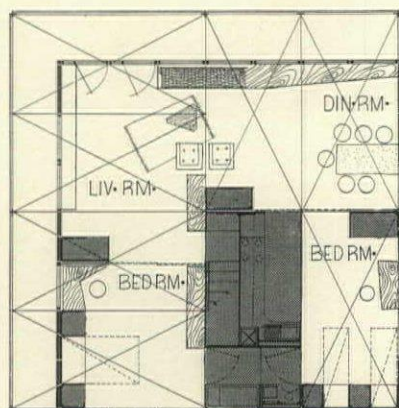


UPPER LEVEL

4 Panels—1 Bedroom

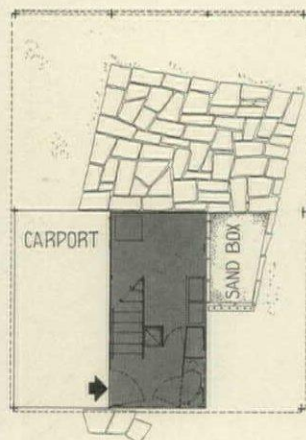


GROUND LEVEL

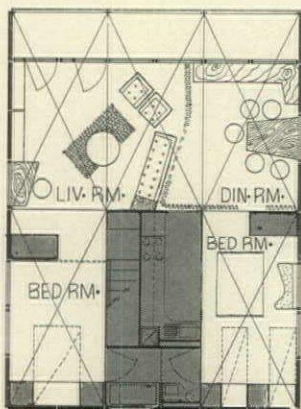


UPPER LEVEL

8 Panels—2 Bedrooms

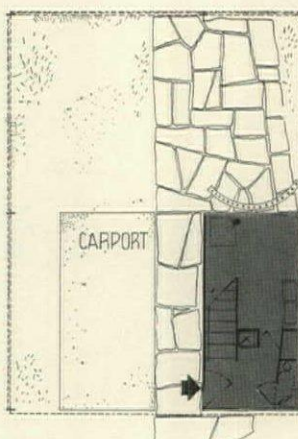


GROUND LEVEL

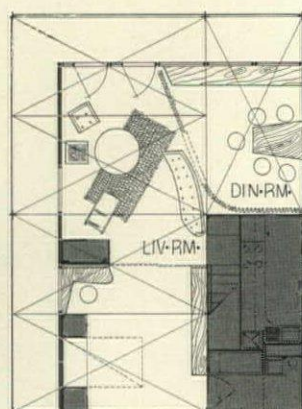


UPPER LEVEL

6 Panels—2 Bedrooms



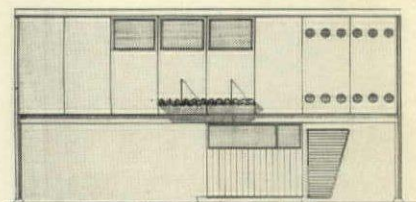
GROUND LEVEL



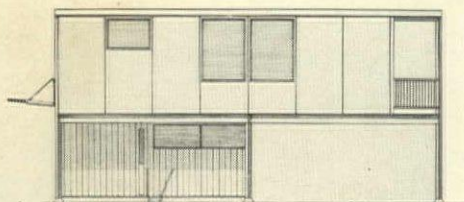
UPPER LEVEL

6 Panels—1 Bedroom

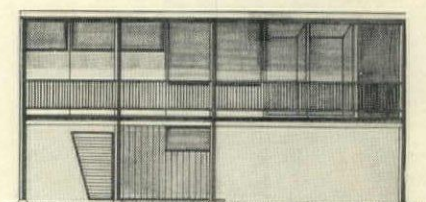




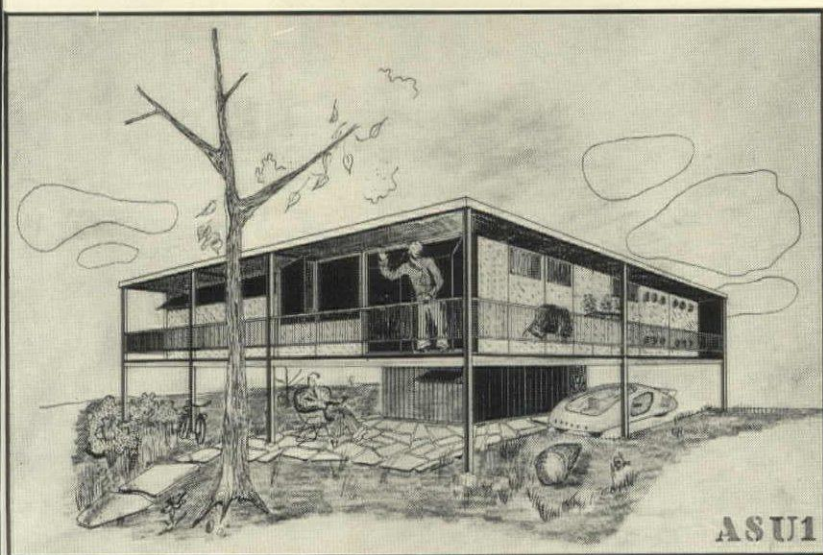
NORTH ELEVATION



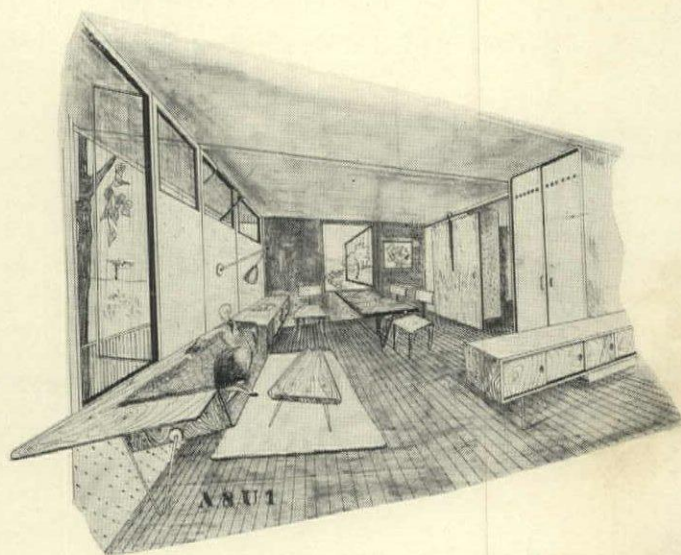
WEST ELEVATION



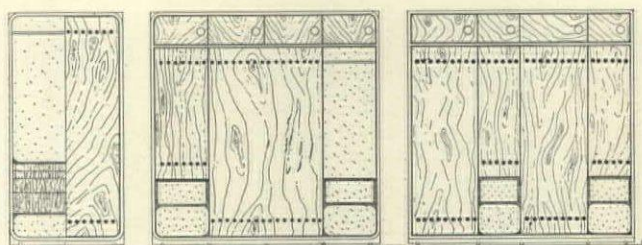
SOUTH ELEVATION



ASU1



ASU1



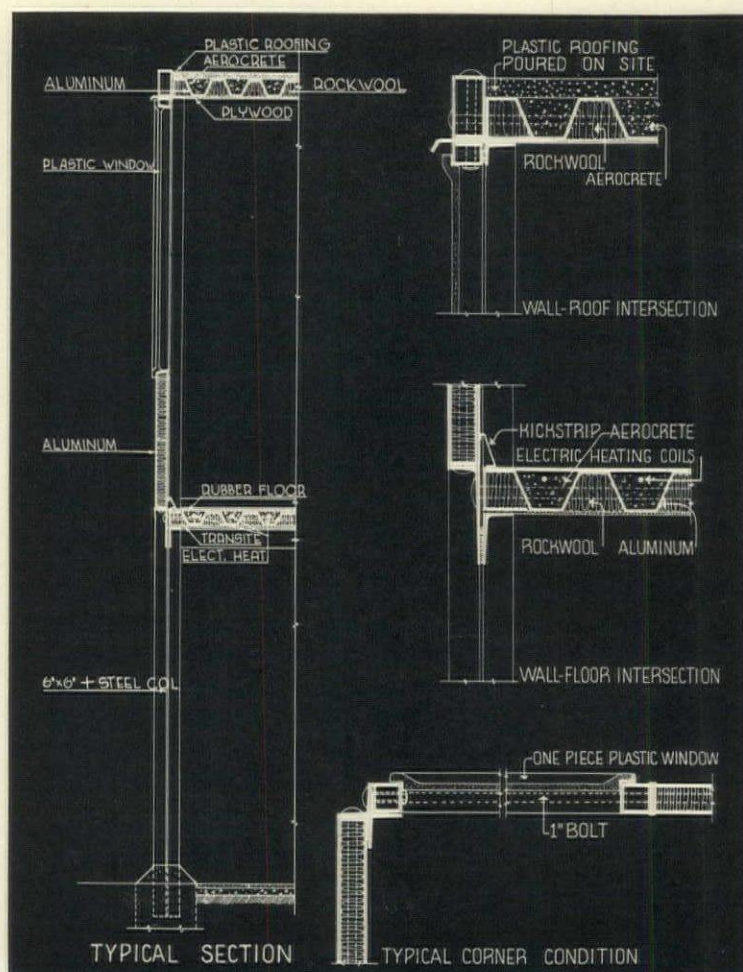
### SCHEDULE OF PLASTICS

**"WINDOWS:** Cellulose plastic (thermoplastic, specific gravity 1.2, bending strength 500 kgms. per sq. cm.)

**WALL PANELS:** Ureaformaldehyde plastic (thermosetting. Filler organic and mineral, no transparency, specific gravity 1.5, cross breaking 14,000 lbs. per sq. in.)

**ROOFING:** Phenolformaldehyde plastic (thermosetting. Filler mineral, no transparency, heat resisting, specific gravity 1.88, blister temp. 390° to 410° F.)

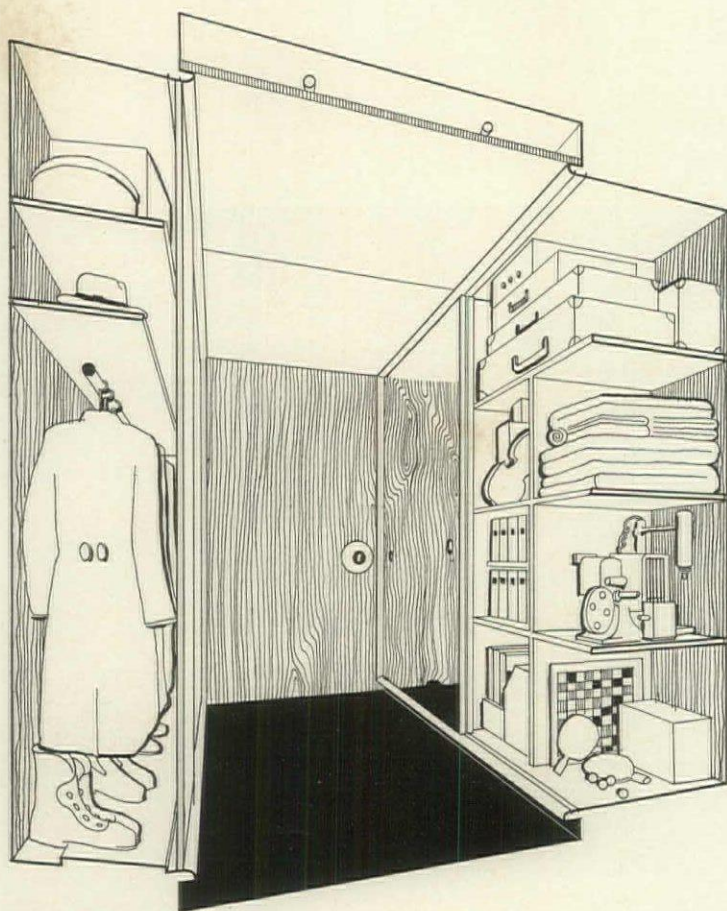
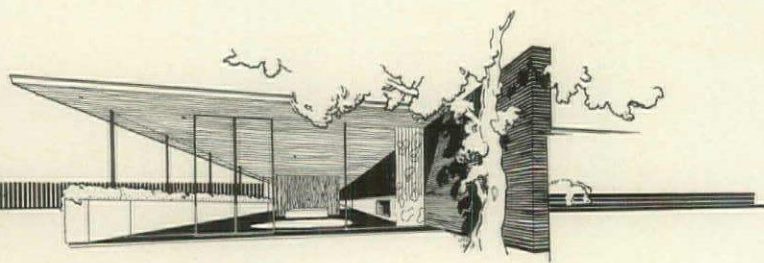
This schedule is merely a suggestion, since no plastics have yet been made to fulfill all necessary requirements. The data were taken from an article by Cotterell Butler, in *Focus 2*, Winter 1938."





"Instead of the multiple-room house or apartment with separate cubicles for living, dining, food preparation, sleeping, dressing, bathing, etc., the Master Room combines all these activities into a single integrated unit. Spaces and equipment for each human activity are suitably planned for efficiency, convenience, flexibility and—where necessary—privacy. These are accommodated within a minimum but uncrowded space.

"The plan divides itself into several general activity areas:



#### MAIN ENTRANCE

"The main entrance (1) contains two storage units, for indoor and outdoor clothing, luggage and accessories. Both are ventilated through their bases and the general exhaust system which also serves the bathing and food preparation units. Lighting is provided by fluorescent lamps over a plastic ceiling. The inside door of the main entrance also acts as a door for the dressing unit (2)."

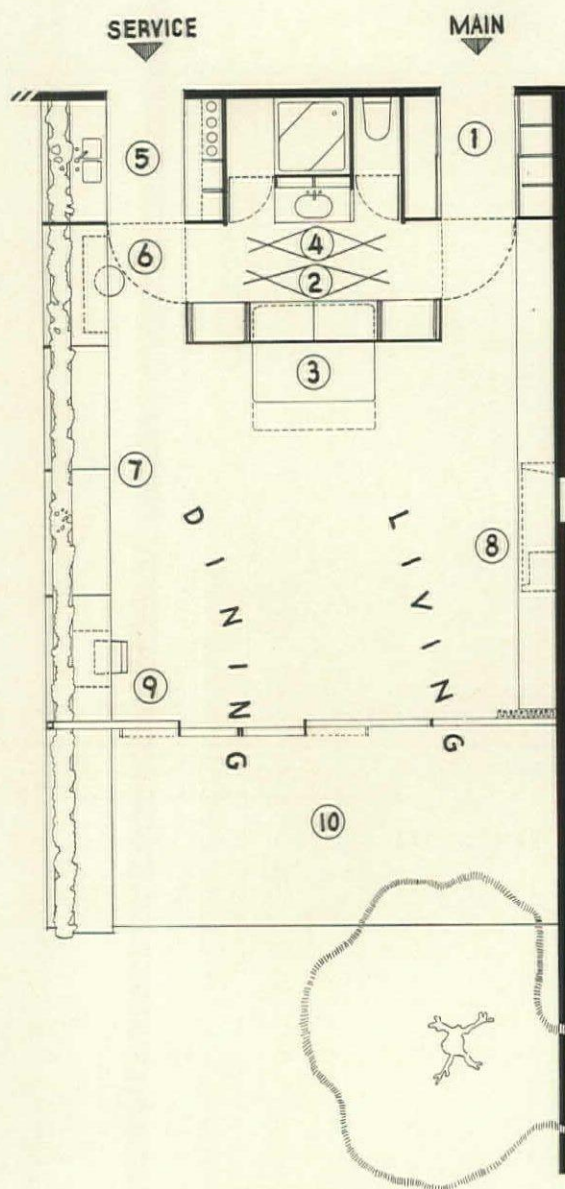
MORRIS KETCHUM, JR.

JEDD S. REISNER



Photos, Stoller

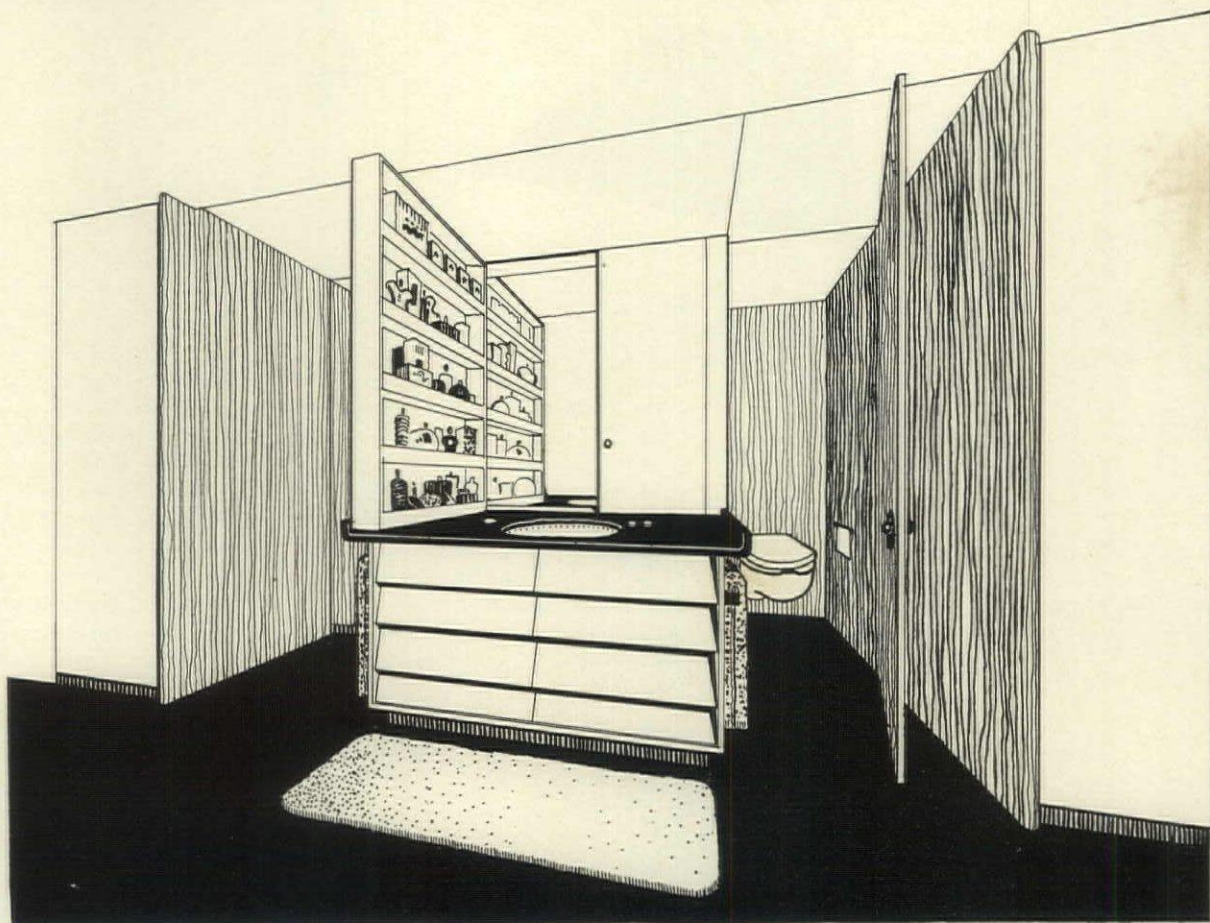
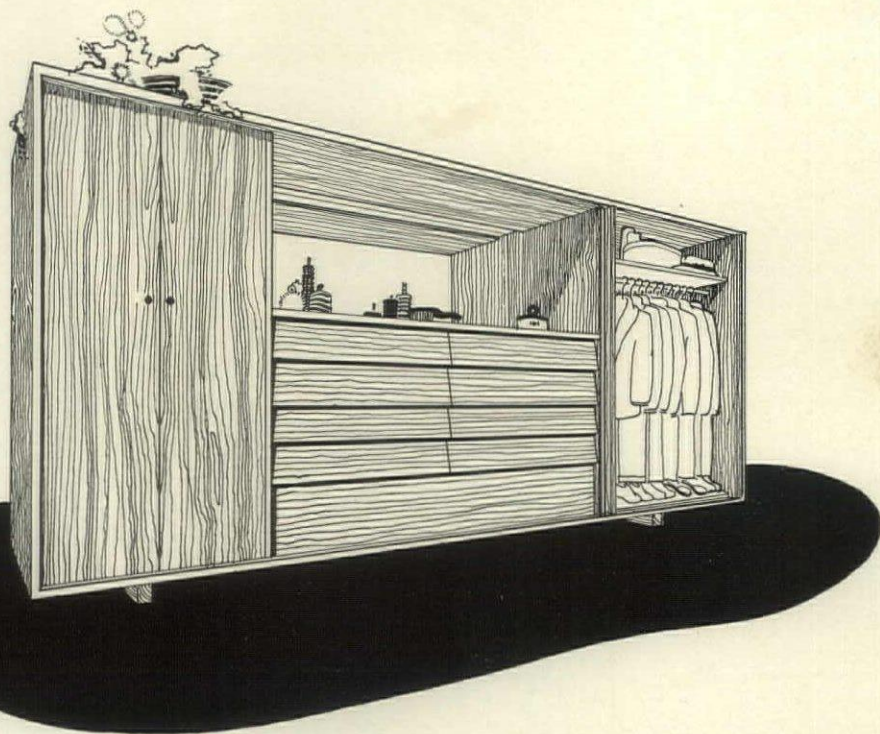
Morris Ketchum, Jr. was born in New York in 1904. He graduated from Columbia, worked in several New York offices, and began independent practice in 1935. While he has executed a variety of building types, he is best known for his outstanding store designs. Jedd S. Reisner studied architecture at Illinois, won the Plym Fellowship in Architecture in 1938, and spent a year in study and travel abroad. He is at present in the office of Harrison, Fouilhoux & Abramovitz.





## DRESSING UNIT

"A free-standing storage unit, 6'-6" high, creates a private dressing space. On the dressing side, it contains two hanging closets with slide-back wardrobe drawers, and two bureaus for indoor clothing and accessories. Above the bureau counter is a large mirror lighted from above. The outside face of the unit acts as a background wall for sleeping or lounging (3). The double or single beds can be pushed partly into a recess in the dressing unit so as to be of couch-depth for daytime use. Opposite the dressing unit, and off the same private space is the bathing unit (4).



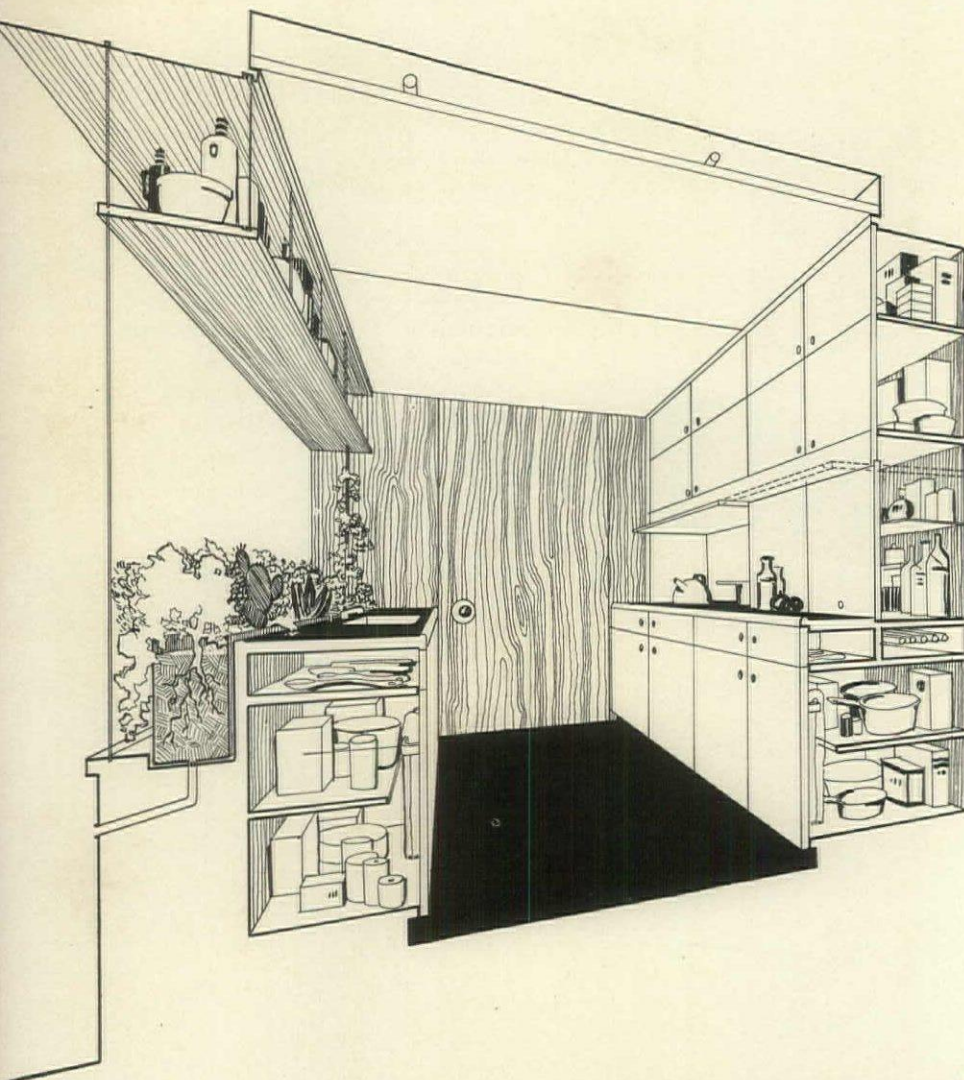
## BATHING UNIT

"The bathing unit is subdivided into a lavatory space, toilet and bathing cubicles. The lavatory has inlets for hot and cold water around the entire rim instead of the conventional faucets. Auxiliary hot and cold faucets on rubber hoses are used for shampooing. The lavatory basin is also large enough to be used for bathing the baby.

"Below the lavatory counter are storage drawers for shaving utensils, toilet accessories and towel storage. Towel bars are located on each side of the lavatory dresser. Above the counter is a two-door mirrored medicine cabinet, with

storage shelves attached to the rear of each door. When open, their swing is stopped at either side by the up-turned rim of the lavatory counter. The space behind these medicine cabinet doors is also mirrored, so that one or both doors may be left open when the unit is in use. The bathing cubicle contains a small dressing alcove and a four-foot square area suitable for tub or shower. The toilet cubicle is on the other side of the lavatory. The entire ceiling of the bathing unit is made of semitransparent plastic sheets, lit from above."





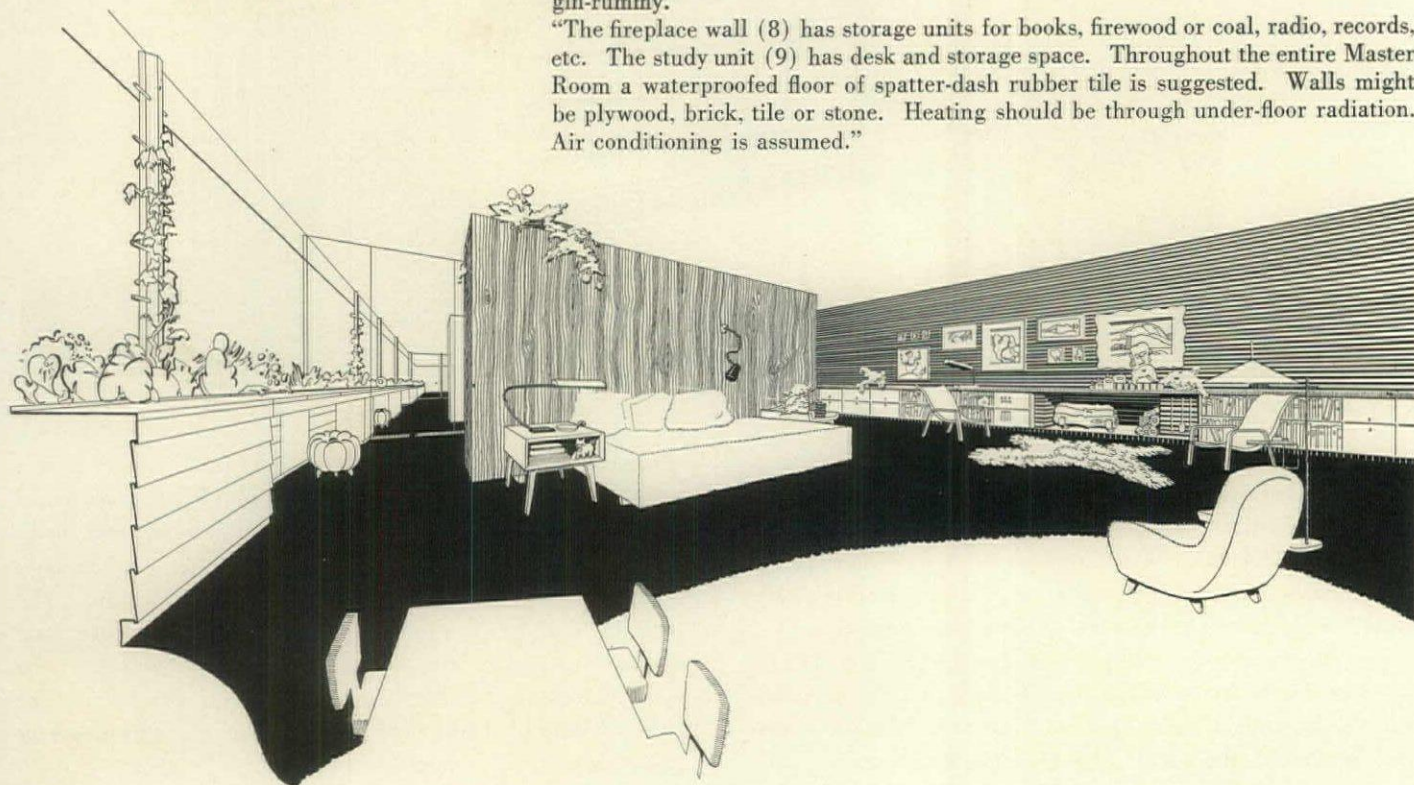
## SERVICE ENTRANCE

"The service entrance (5) forms another vestibule to the Master Room, this time devoted to food preparation and storage, dishwashing and garbage disposal. The window unit is largely a work counter with a built-in sink, dishwasher and garbage disposal unit. Directly under the sink is machinery space, then storage shelves behind sliding doors. Above eye level, and over the work counter, there is a cabinet with sliding glass doors for dead storage of kitchen utensils.

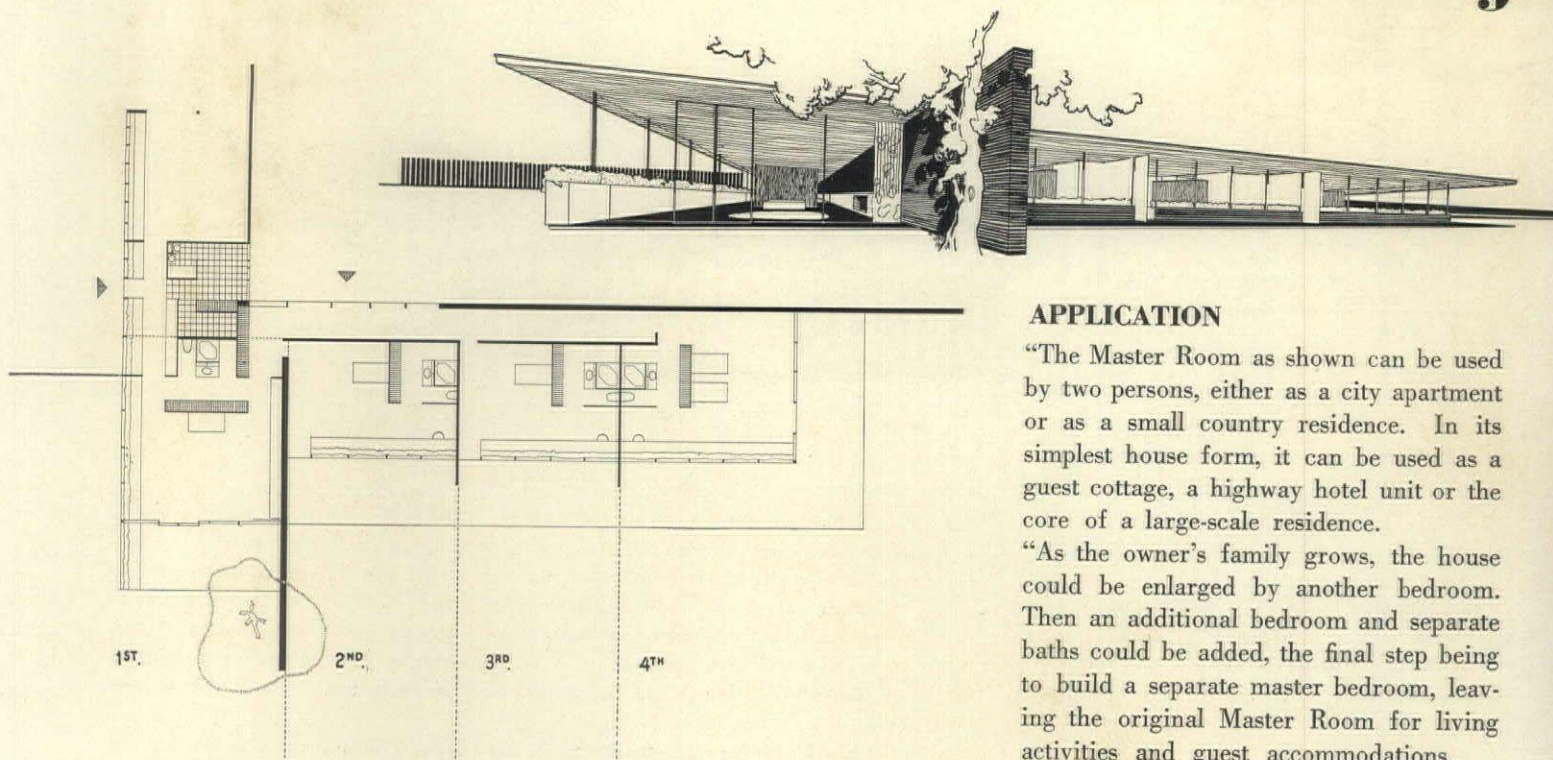
"The heart of the wall unit consists of a counter, covered when not in use by overhead sliding doors. Here are hot plates, plug-ins and a refrigerator. Cabinets provide the space needed for storage. This area is lighted in the same manner as the bath unit.

"The window counter in the service entrance extends the entire length of the Master Room. Its first section is used for both powder table and bar unit (6). The dining space (7) has ample counter storage for china and glass. The dining table may be extended, guest-by-guest, to the outer limits of the adjacent terrace—weather permitting. This table doubles in brass for ping-pong, poker, bridge and gin-rummy.

"The fireplace wall (8) has storage units for books, firewood or coal, radio, records, etc. The study unit (9) has desk and storage space. Throughout the entire Master Room a waterproofed floor of spatter-dash rubber tile is suggested. Walls might be plywood, brick, tile or stone. Heating should be through under-floor radiation. Air conditioning is assumed."



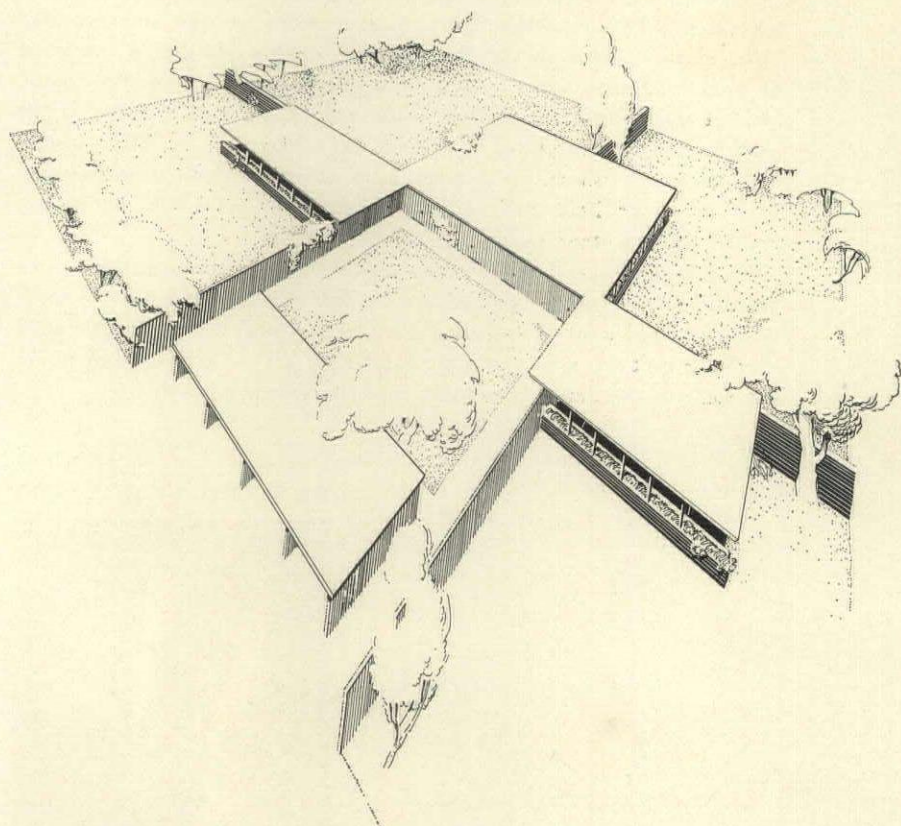




### APPLICATION

"The Master Room as shown can be used by two persons, either as a city apartment or as a small country residence. In its simplest house form, it can be used as a guest cottage, a highway hotel unit or the core of a large-scale residence.

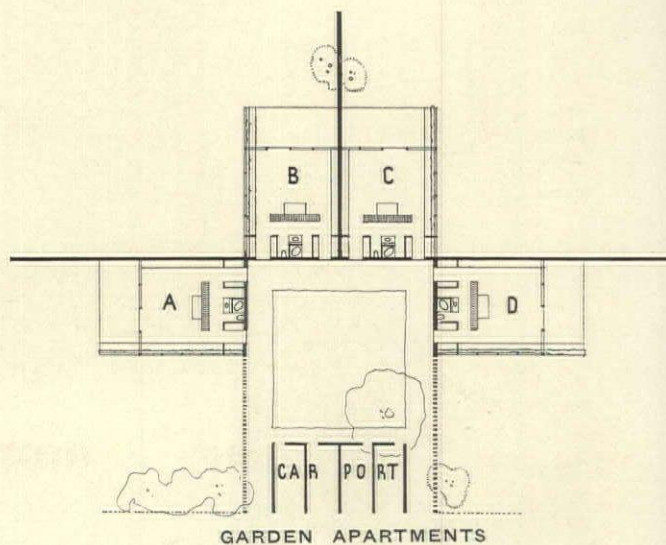
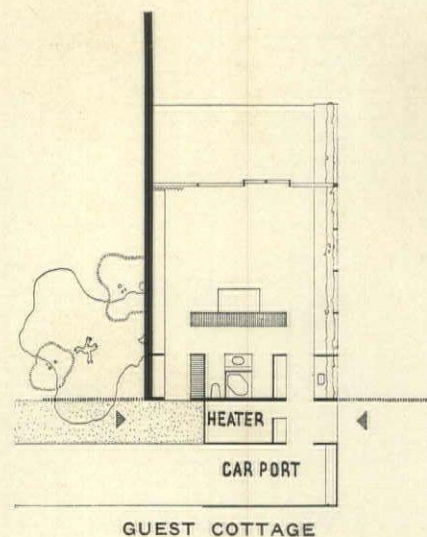
"As the owner's family grows, the house could be enlarged by another bedroom. Then an additional bedroom and separate baths could be added, the final step being to build a separate master bedroom, leaving the original Master Room for living activities and guest accommodations.



### GARDEN APARTMENTS

"Finally, the Master Room may be combined in multiple units such as Garden Housing. A simple group plan is shown, using four Master Room units, each with its own garden. The multiple garage or carport screens the apartment entrances, and a feeling of privacy is produced by the party walls carried outside as garden enclosures.

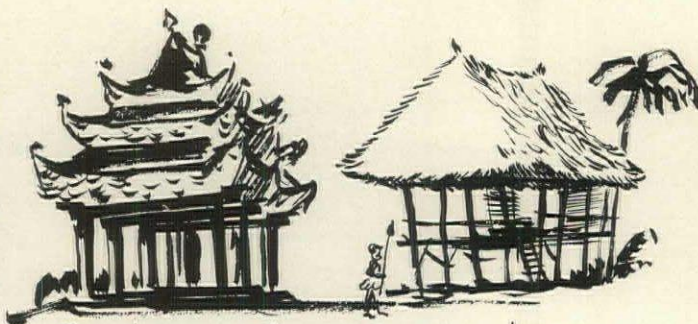
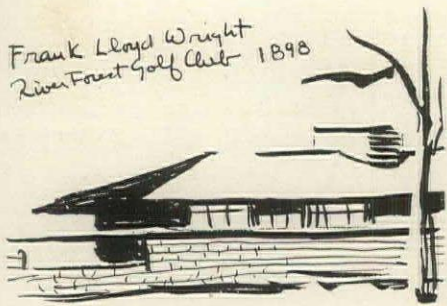
"Such multiple units form pleasant suburban apartments, which in turn could be repeated in whatever pattern suits local site conditions, to form entire housing developments."



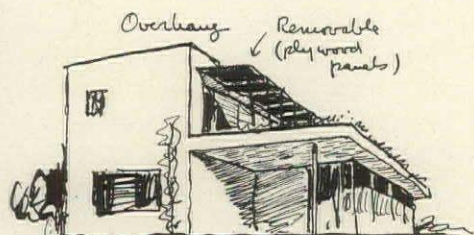
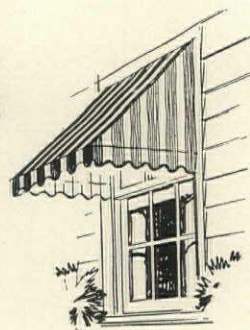


# ALL PURPOSE WINDOW

Frank Lloyd Wright  
River Forest Golf Club 1898

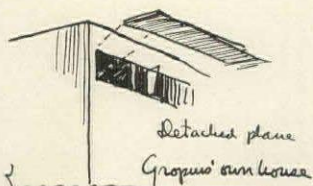
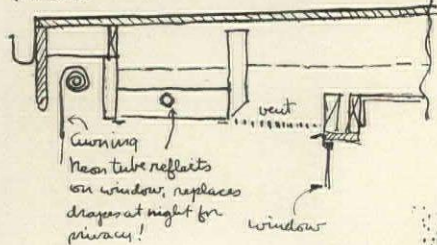


Oriental and Savage (?) use of overhangs

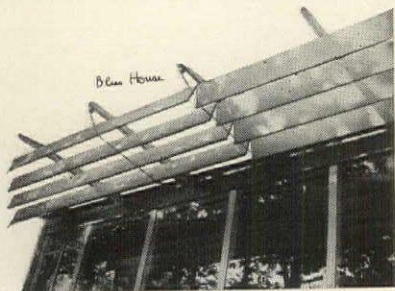
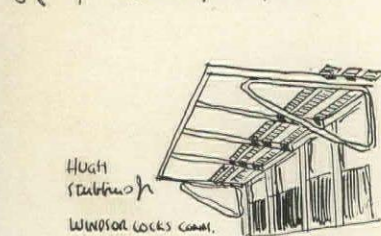
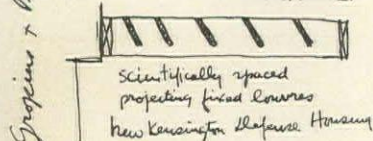


Kowalski House Edward Stone 1935(?)

Richard Neutra - VDL Research House



Movable slats - Ford House Lincoln Mass.



"There is danger in the feeling that suddenly there is going to be a postwar period with all social problems solved and prefabrication offering something with the final answer to all the fundamental questions architects haven't been able to lick. More likely the average house is going to be based on standards of existing acceptable features, and progressive ideas will have to be put over at the expense of individual frustration, that which is finally proven good being exploited by the smarter operators.

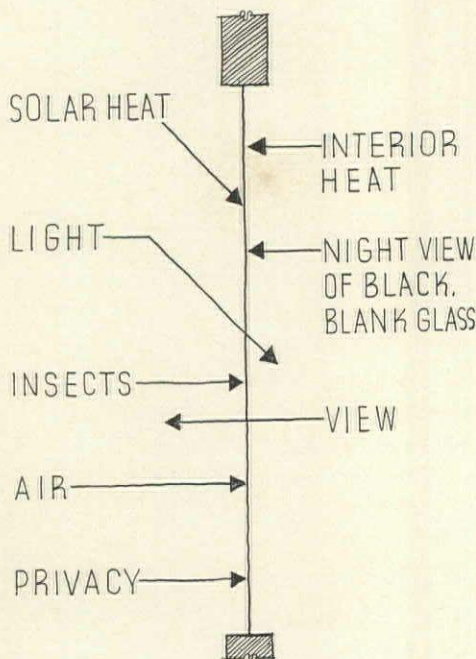
"However, the manufacturers of the parts of buildings who do not yet feel up to a packaged house may do well to reconsider the elements of buildings. Perhaps the greatest good is going to come from groups attempting to find common standards and modules so one man's radiator enclosure will fit another man's window more or less automatically. "Our idea is based on the belief that a window should be conceived as something more than a type of operation—double-hung, casement, etc. It might better be thought of as a filter, taking the place of the solid wall, and controlling light, heat, air and vision, repelling insects and unwanted visitors. It is possible to articulate these functions with fixed glass for light and vision and obscure panels for ventilation. Polaroid offers other possibilities not shown here.

"The marginal sketches show how architects have been attacking the problem of overhangs—something very desirable in the minds of those who have used a lot of unshaded glass to the south or west. The solid overhang isn't the answer, for we want light all of the time and direct sun some of the time. Something more flexible is needed."

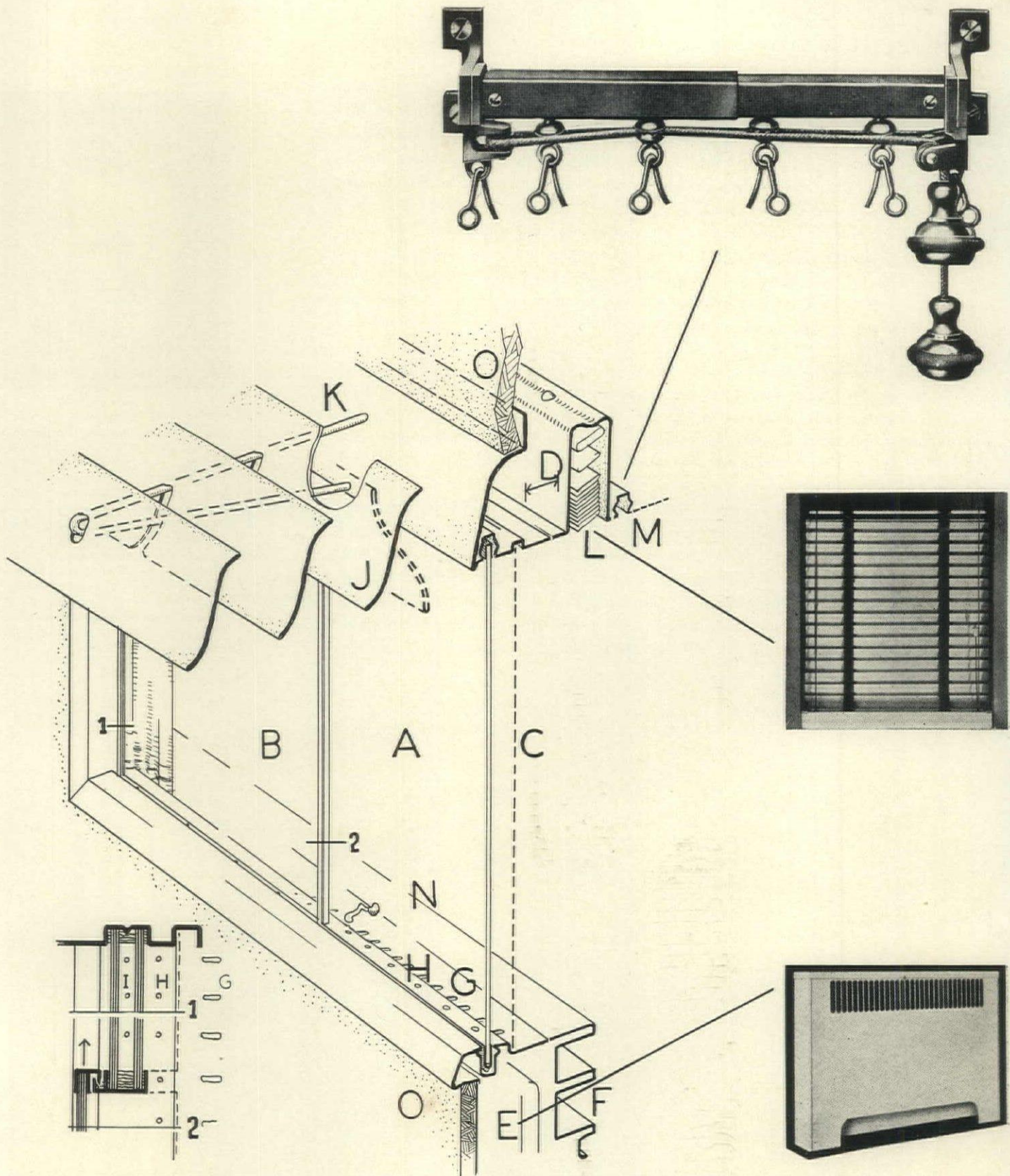
RICHARD M. BENNETT



Born in Ohio and trained in architecture at Harvard. After working in New York offices he went into independent practice, and in 1938 won a national competition for the Wheaton College Art Center, in association with Caleb Hornbostel. Since that time his work has been a combination of general practice and teaching. At present he is teaching at Vassar and Yale, and at the latter is design coordinator for the new program of architectural education.







"This window has adjustable sun flaps. Since we may also need curtains and Venetian blinds, these should be part of the window too. The surface of the glass should be etched to make it non-reflecting (still expensive) and might well be used with bound metal edges following automobile practice. The frame is of steel, with deep rabbets for large tolerances. Flashing and plastic weatherstripping are integral. The radiator enclosure allows part of the heat to flow between the center glass and inside storm sash to eliminate condensation.

"The close tolerances of factory production are fine, but they should allow greater tolerances in the field. We thought that rather than make the window fit within structural limits we would hang it outside the supports, achieving continuity and avoiding a number of problems."

- A Metal-bound horizontally sliding glass (could be double).
- B Double-glazed fixed sash. Space between vented to outside (see I).
- C Insect screen or winter triple glazing.
- D Clear depth for structure. Window hung outside supports.
- E Heating source. May be exhaust plenum if down draft warm air is used.

- F Optional bookcase or cabinet assembly.
- G Heating grille.
- I Air space of double-glazed sash.
- J Adjustable sun flaps, operated inside.
- K Flap arm, length to suit orientation.
- L Venetian-blind recess.
- M Curtain track.
- N Sash operator.

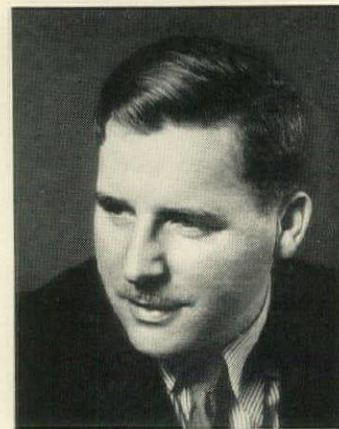


# HOUSE, PREFABRICATED UTILITY UNITS

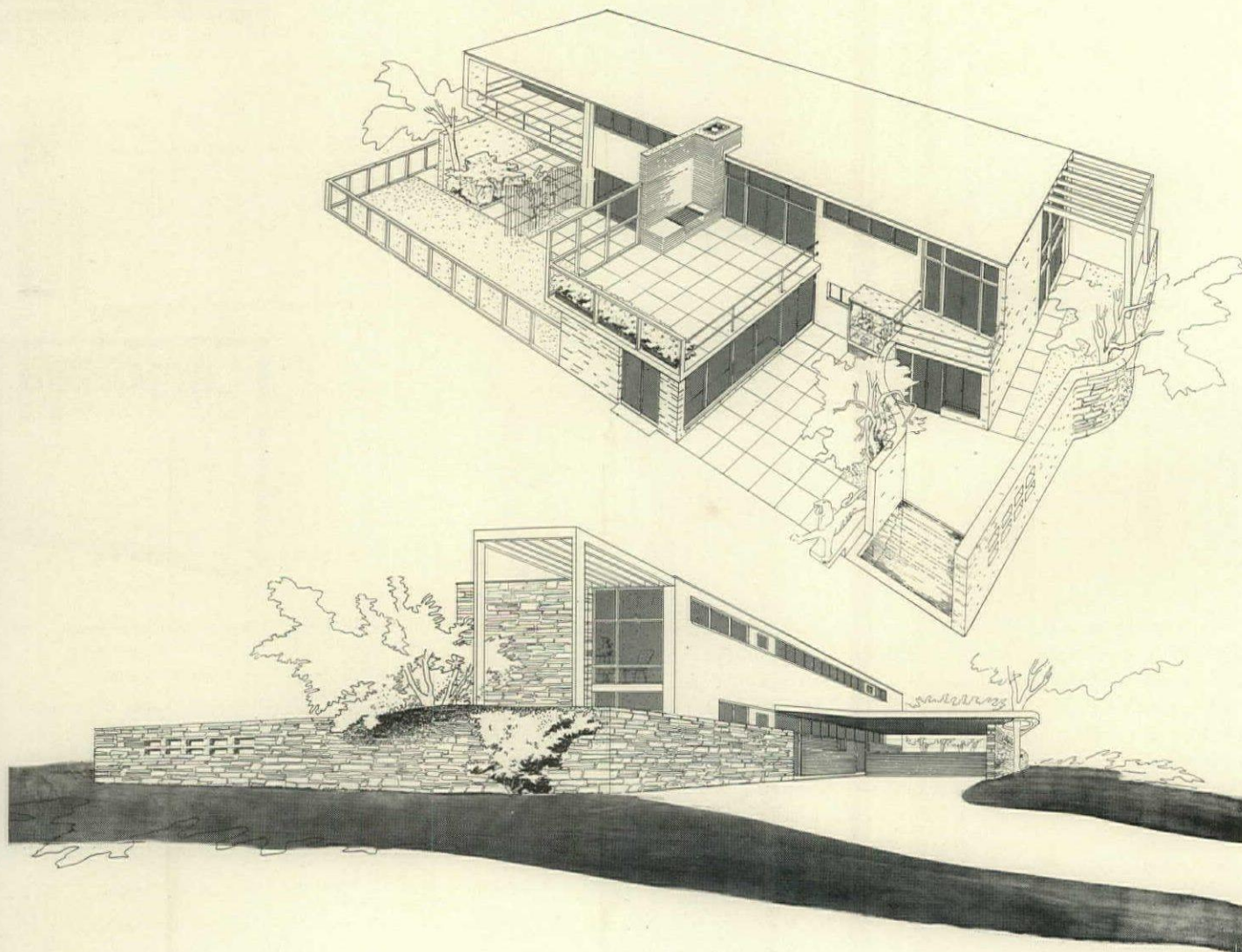
"Until victory is firmly in our grasp, not only on the military, but on the economic and social fronts as well, postwar speculation belongs to the realm of wishful thinking. The price of these victories will determine the shape of things to come, including the House of 194x. There is only one thing certain and that is the inevitability of rapid change. One needs little power of observation and little knowledge of current history to note the state of flux existing now, a state which generally precedes the acceptance by society of new terms. The architect can, if he wishes, discover symptoms of psychological, economic and technical comportance to warrant his expectancy of new viewpoints on architecture. He may or may not sense the hunger for a form of quietism, and he may interpret it as the forerunner of an acute state of 'postwar psychosis,' the peculiar nervous condition which compels man to draw tightly to his fellow creatures. Architecturally, this may necessitate an open house with plenty of retreats for each member of the family.

"The exodus from congested places to more open and pleasant breathing space is probably in the offing—advances in transportation meaning more land further out at less cost and the amenities of city life available in the country. Technical improvements, hastened by war developments, await only the freeing of plants and materials from war production. Once able to compete with the have-beens, these great new industries will issue their own dicta to the consumer. Already there is structural glass encouraging the frameless door and window, and there are promising plastics to give us new floor and wall surfaces and structures as well. There will be the packaged bathroom which, *à la* Buckminster Fuller, will afford a separate sanitary unit wherever family composition suggests it and, among others, there are the developments of stressed plywood and other types of glued construction to enable us to build inexpensive shells with considerable freedom of design, perhaps ending the vicious shrinkage of space which has continued since Victorian days."

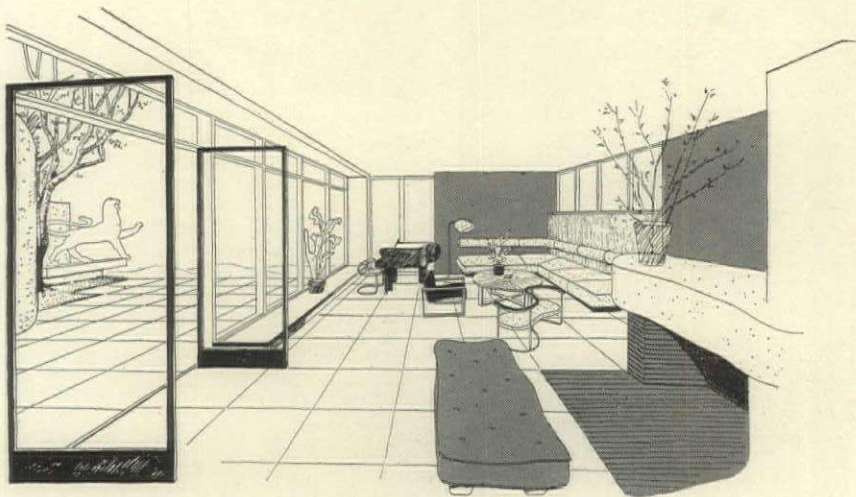
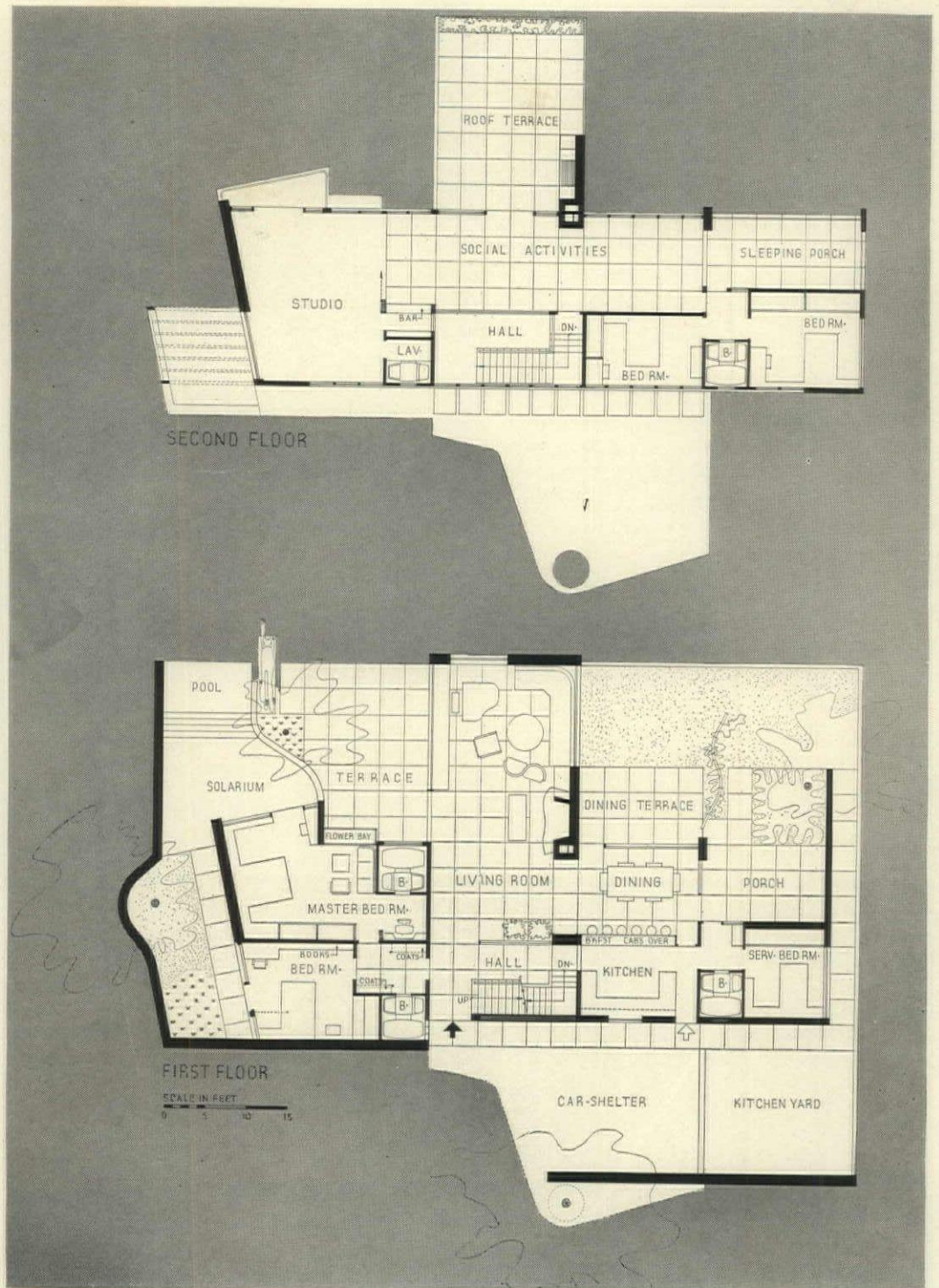
ALFRED KASTNER



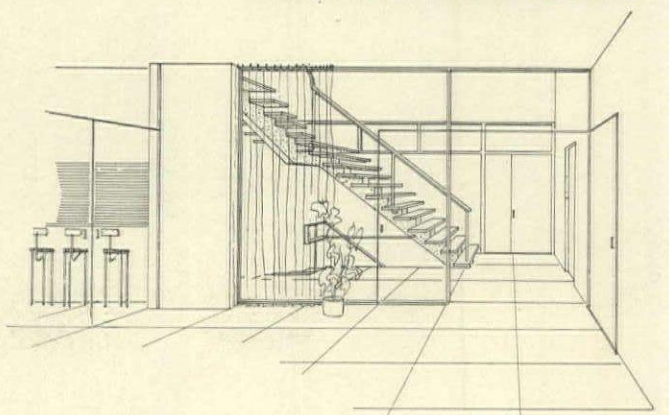
Architect, Washington, D. C., worked in Austria, Germany and Holland before coming to the U. S. in 1924. American experience included work as a draftsman in the offices of Mayers, Murray & Phillip, Joseph Urban, and Hood & Foulhoux. Won first prize, International Competition for Ukrainian National Theater, Kharkov, 1929; second prize (with Oscar Stonorov), Palace of Soviets, Moscow, 1930; first prize, Lehigh Portland Cement Competition, 1928. Practice mostly in field of public housing.







JUNCTION AT LIVING ROOM AND HALL





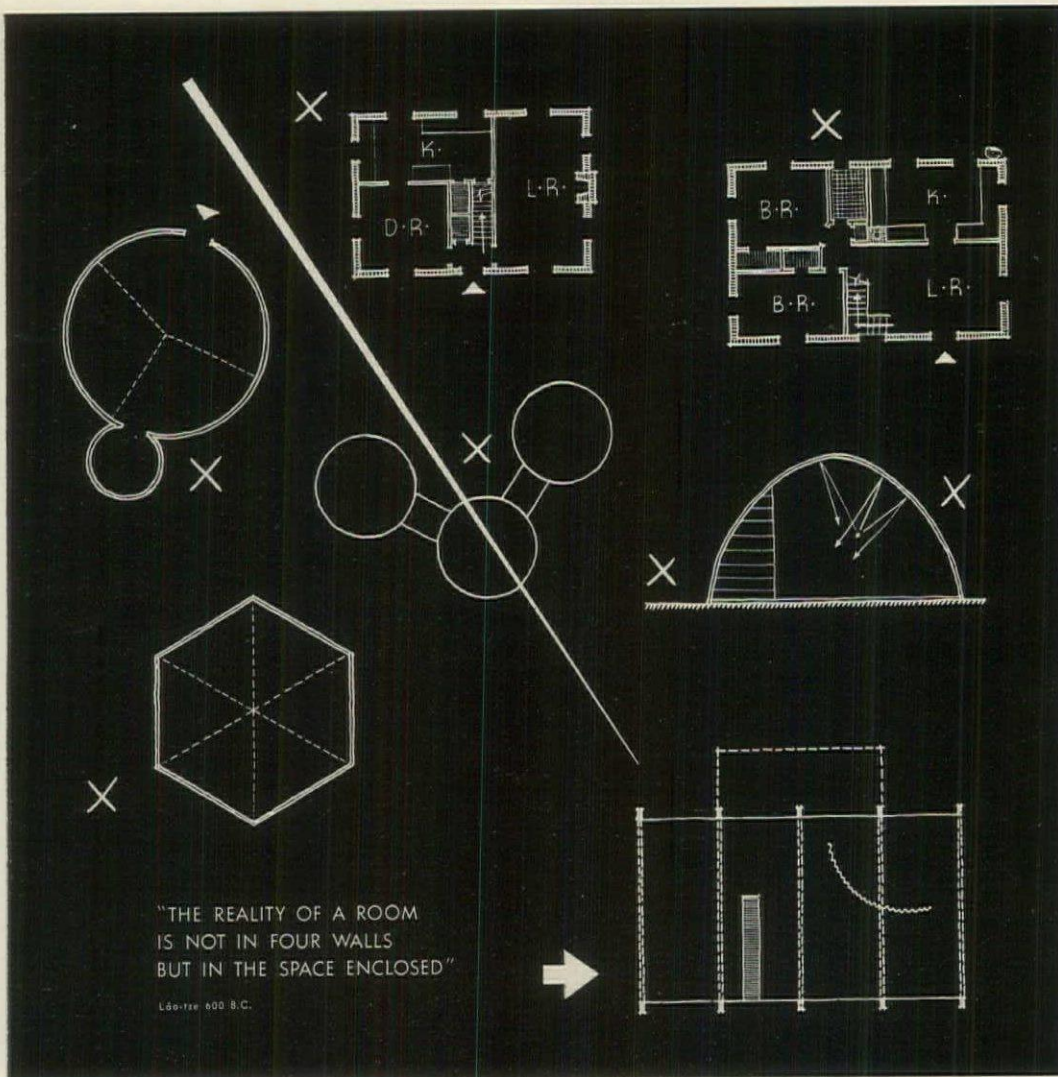
"This planning study of the house of 194x is a tabloid review of several significant trends in the design of flexible space, zoned and conditioned for satisfaction.

"How may space be enclosed? Expansive rectangular form, completely spanned, has inherent flexibility and structural simplicity. Thus far, conventional small house plans have been rigid, owing primarily to the need for internal supports. Fixed geometrical forms, of the types recently suggested by a number of 'radical' designers, also have inherent disadvantages: internal relations are sacrificed to an outward form determined by cell structure or mineralogical axes, economy of material (which may not be a problem in 194x), and the search for streamlines and minima which have cursed static design since the 1930's. Free form has little scope within a concentric geometric shape. Sectors and segments have a confining effect and can be awfully monotonous when they beat an accompaniment throughout a design. Curves and angles create connection, partition and acoustic problems.

"How may space be divided? Rectangles, completely spanned by trusses, bents or other methods, permit freedom of interior division by storage units and screening elements for careful zoning and conditioning of space for use, and for visual space design. Areas may interlock and flow into each other. Privacy and comfort can be maintained without complete compartmentation. In the plans shown, definite divisions have been made between activity and quiet zones.

"Such rectangular space as a shelter, with attached or enclosed utility units, could be fairly well standardized for construction in different regions, and left as such until a family moved in with its own dividing units which in the case of storage units may be used for packing and shipping. This does not indicate a belief in nomadism—even an established family may wish the alterations easily effected with such flexibility.

"Considerable variety in the exterior appearance of the standardized rectangular shelter can be obtained through the attachment of accessories: porches, garages, etc., as well as through color and texture design."



## LOUIS SKIDMORE



Architect, New York City, he studied at the Massachusetts Institute of Technology and won the Rotch traveling scholarship. Worked in the offices of Maginnis & Walsh, Boston, Mass., and Kruckemeyer & Strong, Cincinnati, Ohio. Chief of Design, Century of Progress exposition. Formed firm of Skidmore and Owings in Jan. 1936.

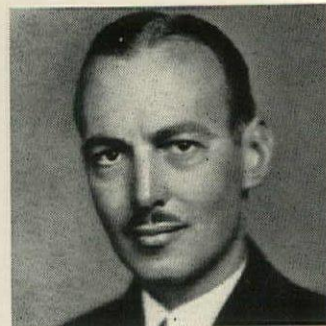
## NATHANIEL A. OWINGS



Moffett Studios

Architect, he worked for York & Sawyer, New York City and as Development Supervisor, Century of Progress exposition. Traveled around the world for study in 1935. President, Chicago Chapter, A.I.A.

## JOHN O. MERRILL



Architect, he studied engineering at the University of Wisconsin and Massachusetts Institute of Technology. Captain, Coast Artillery in World War I. Partner in firm of Granger & Bollenbacher, Chicago, Ill., 1925-39. Joined firm of Skidmore and Owings in 1939.

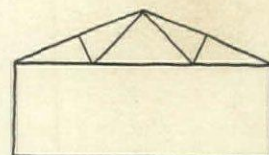
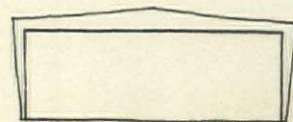
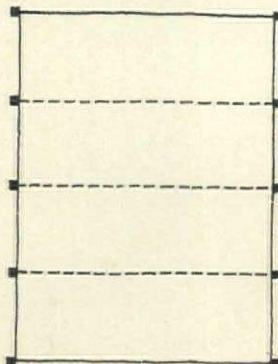
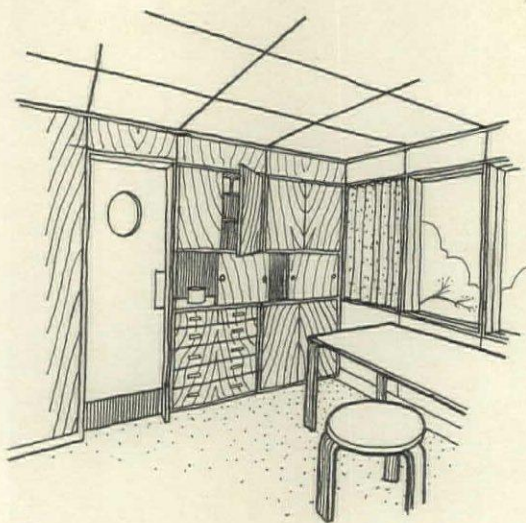


"The basic units can be thought of as VOCABULARY, their considered relation to each other as GRAMMAR and the final expression in a plan as COMPOSITION. The following sketches suggest some of these possibilities—the plans have been developed with progressive change in mind. Utilities should be replaced when obsolete, not necessarily

as a complete room. Families may increase or shrink. Flexible space provides one answer. No attempt has been made to do a complete design job of any of the units or spaces. Emphasis here is on relationships and planning techniques rather than the detail of bathrooms, kitchens, storage units or construction."

## VOCABULARY

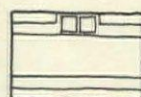
### SHELL



### UTILITY UNITS



utility

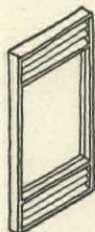


kitchen

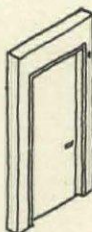


bath

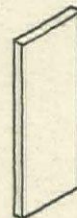
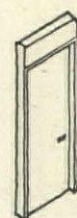
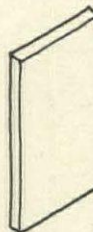
### WALL UNITS



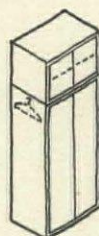
exterior



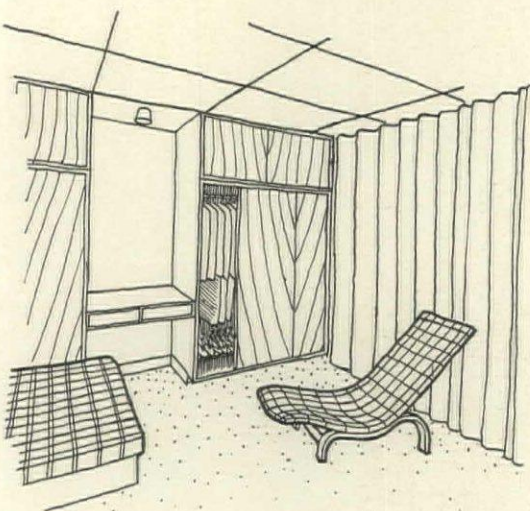
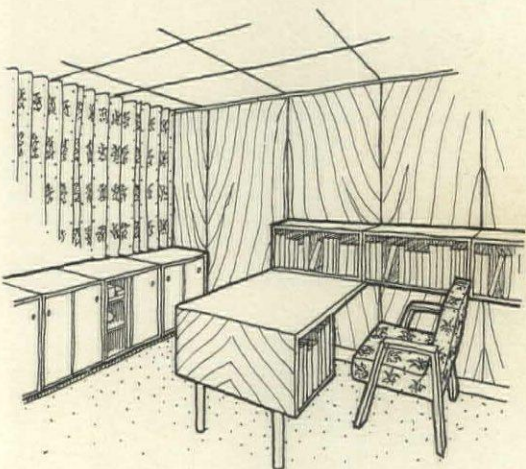
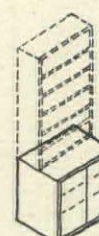
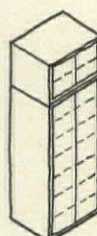
interior



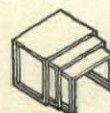
### MOBILE UNITS



thing furniture



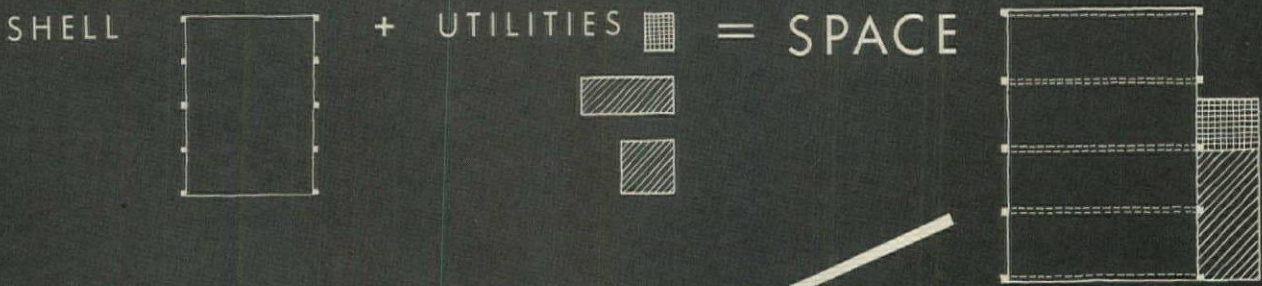
body furniture





# GRAMMAR

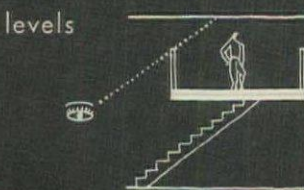
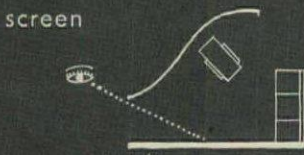
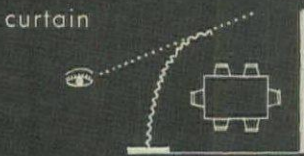
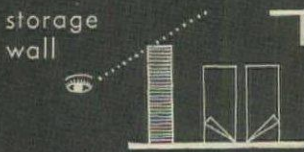
FUNCTIONAL RELATION OF VOCABULARY



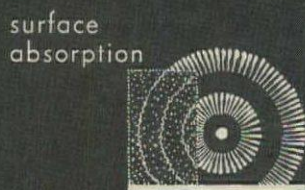
every family  
every family  
is different  
changes

FLEXIBLE DIVISIONS  
INTO ACTIVITY  
AND OF QUIET  
SPACE ZONES

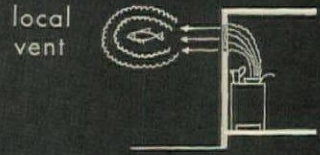
VISUAL CONTROL



ACOUSTICAL CONTROL

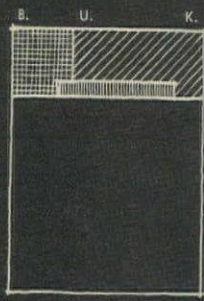


ATMOSPHERIC CONTROL





## COMPOSITION



SPACE A

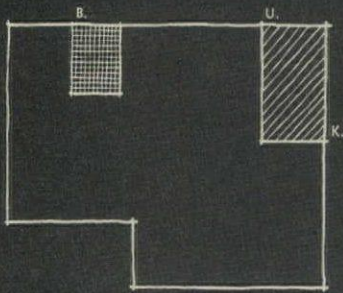
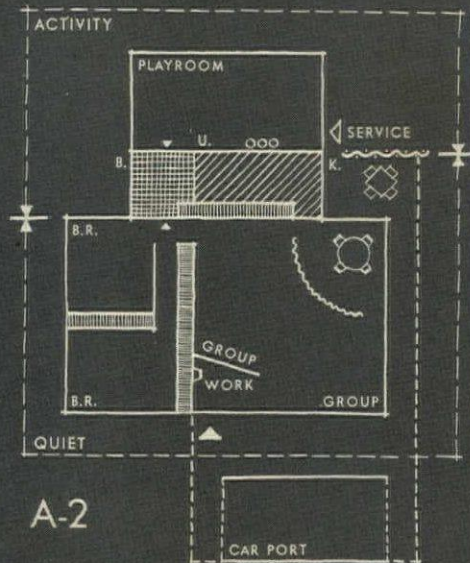
A



A-1



A-2

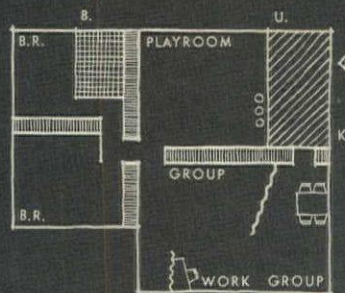


SPACE B

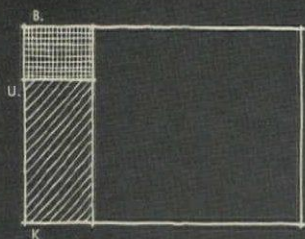
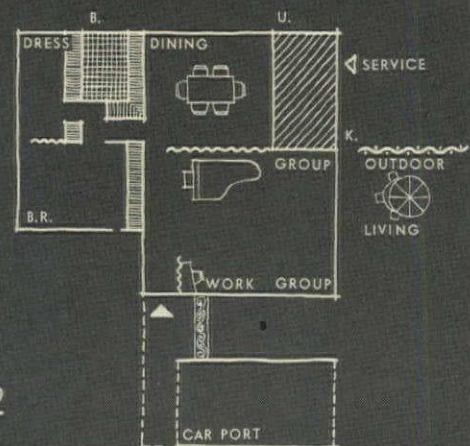
B



B-1



B-2

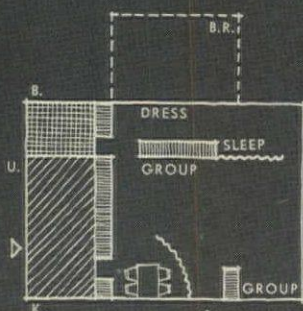


SPACE C

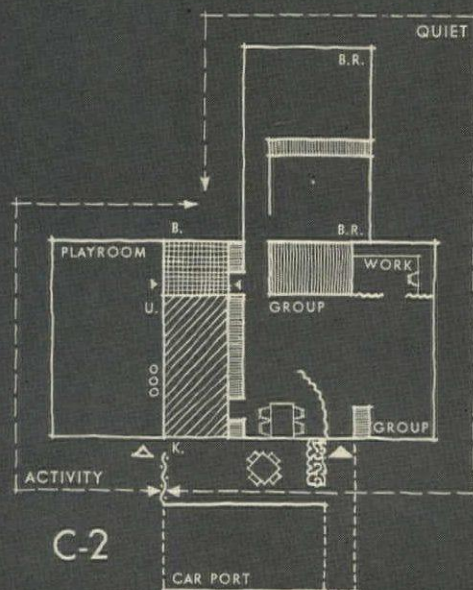
C



C-1



C-2





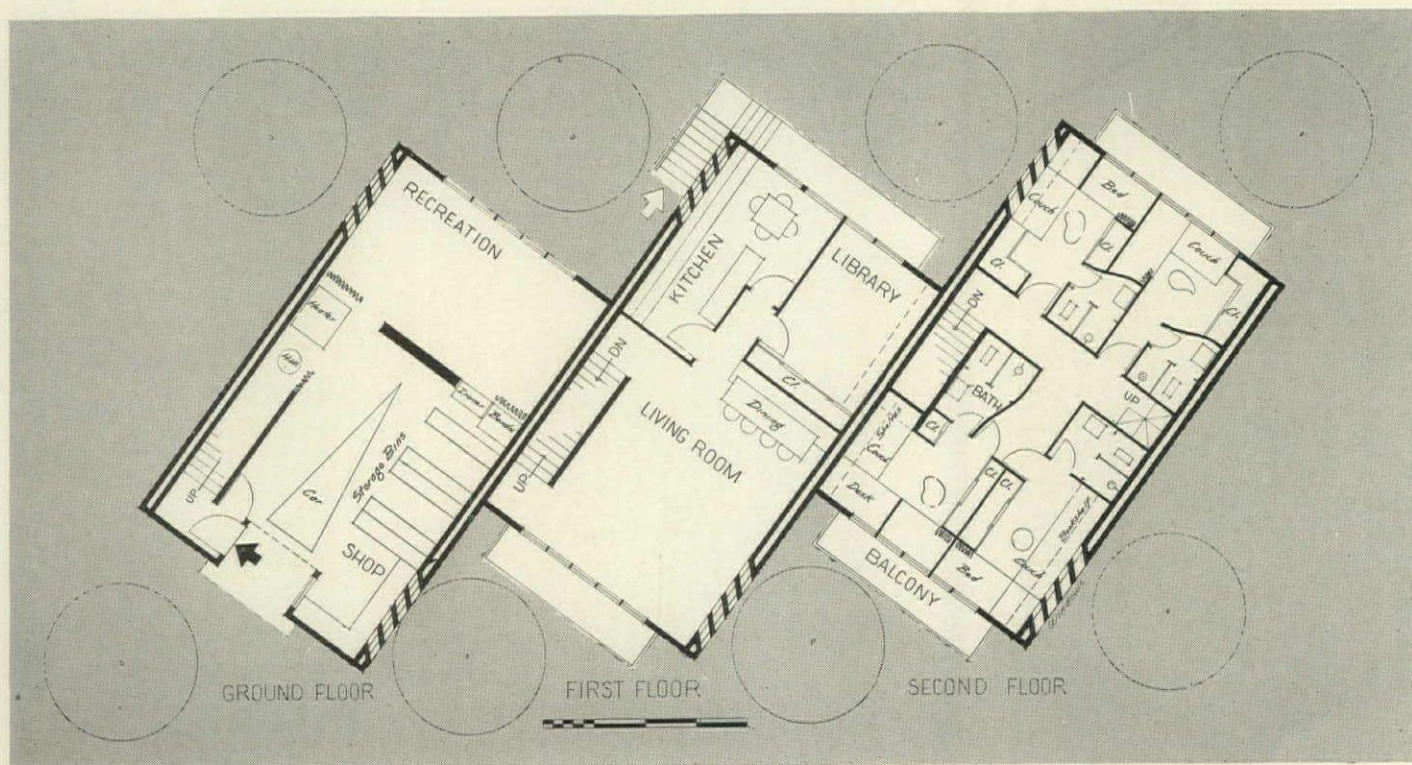
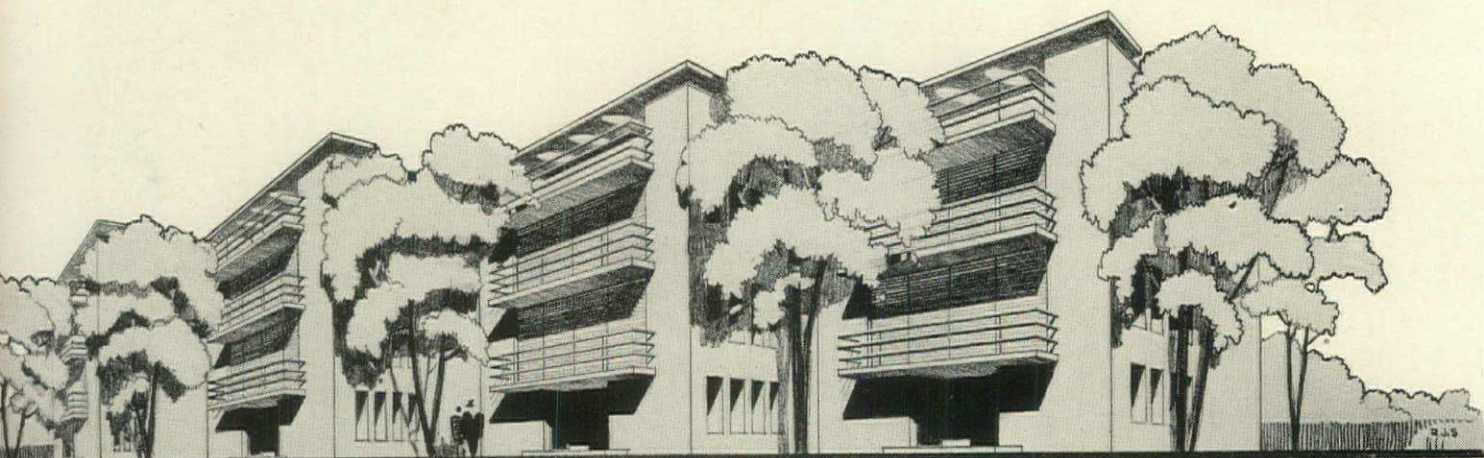
"These units were designed to produce essential improvements in urban living, with the following basic assumptions:

1. A tree is an essential part of the house.
2. A larger percentage of block area should be left for trees and other planting.
3. The block is the smallest plannable unit and is even too small at that. This type of unit could take existing areas and rehabilitate them for modern urban living.
4. A bedroom is a place to sleep and not to dress or visit in. A slept-in bed always has a slovenly look. Therefore the dressing room uses a maximum area and the sleeping room a minimum area.
5. The angular offset of the units permits a more generous use of windows.
6. Let us repeat that a good sized specimen tree is a necessary part of the entire unit and is as important to the group success of the scheme as the toilets and the kitchens."

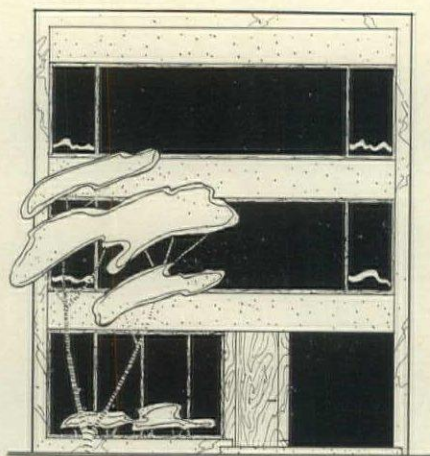
ALFRED SHAW



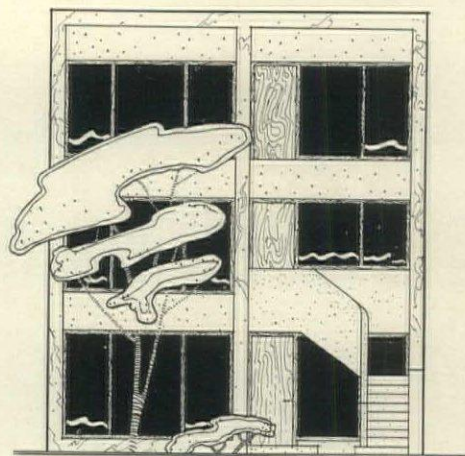
Member of the firm of Shaw, Naess & Murphy, he was born in 1895 and received his technical education in Boston offices and ateliers. He is consulting architect for the Chicago Subway Commission, chairman of Chicago's Urban Redevelopment Committee and architect of a variety of public, commercial and housing projects. Recent work of the firm includes the Bermuda Base and the Naval Ordnance Depot in Oklahoma.







STREET ELEVATION



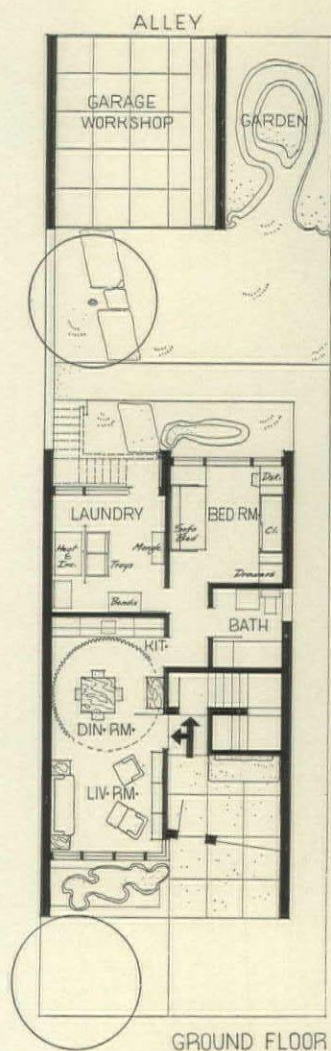
YARD ELEVATION

"This house is designed to be built by a young man, professional or otherwise, with a promising future but a limited present budget."

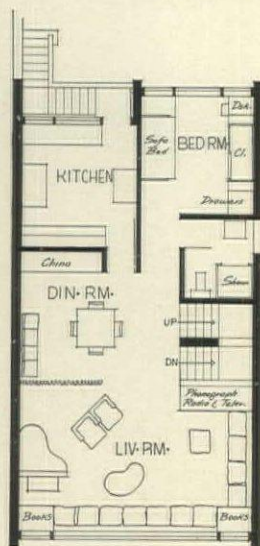
### RAY STUERMER



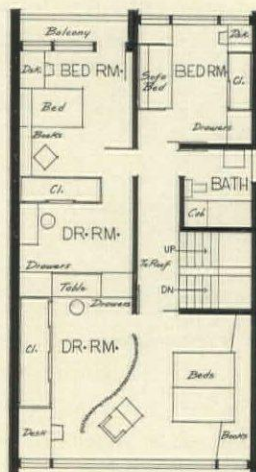
Born in Chicago in 1912. He studied architecture at Armour Institute and later at the University of Illinois, graduating in 1937. While a student he won the Illuminating Engineering Society competition, and was a finalist in the American Academy in Rome Competition. He has been with the office of Shaw, Naess & Murphy since 1938.



GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

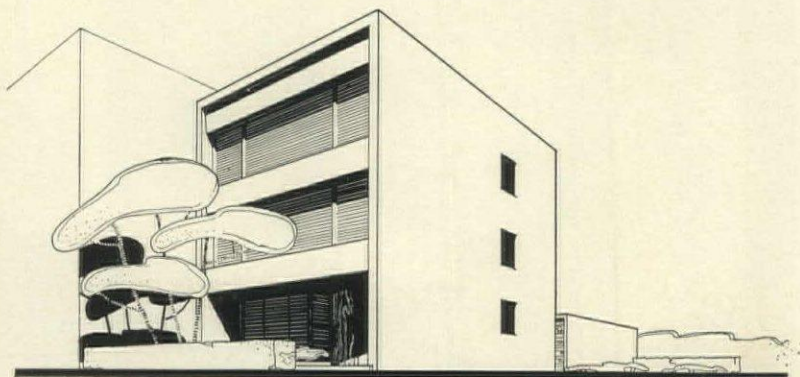
0 5 10 15 20

"Stage 1. Shell of the house is built completely but leaving the top floor completely unfinished. The owner occupies the first floor and the ground floor is rented out.

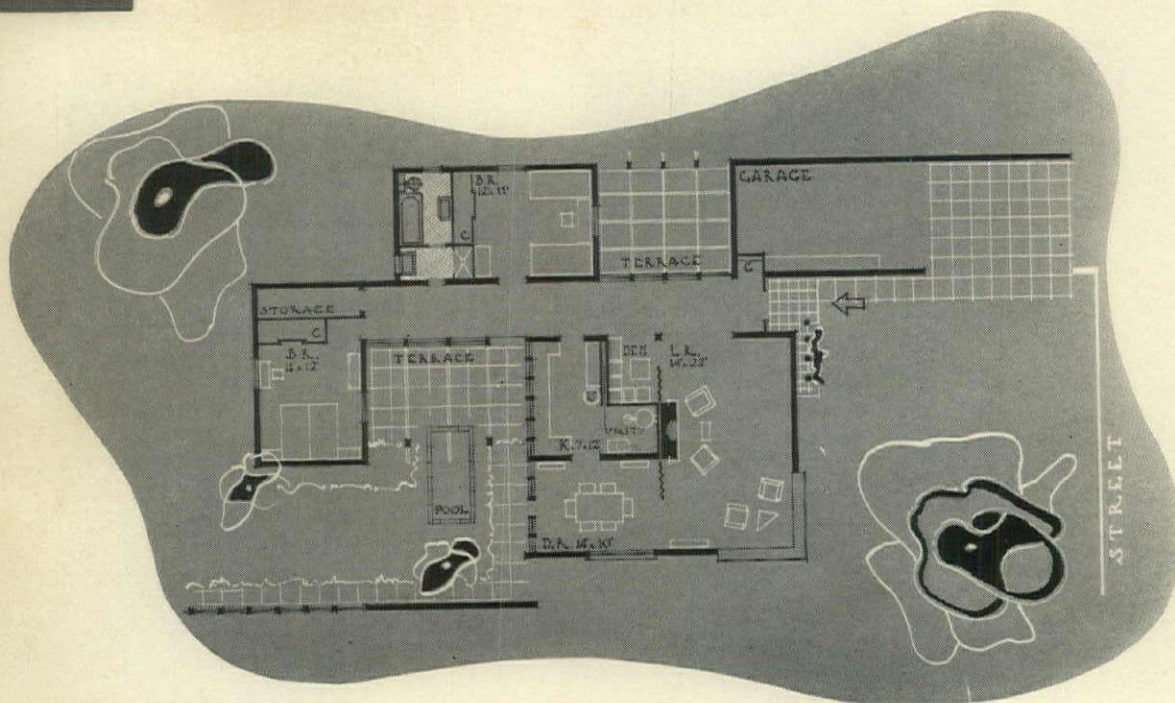
Stage 2. Completion of top floor, expansion of owner's apartment to two floors.

Stage 3. Conversion of ground floor to servants' apartment or other required use.

Solid insulated bearing walls on two sides. Front and rear all double-glazed. Floors of long-span cellular steel with cork sub flooring. Non-bearing partitions, using mainly cabinets, curtains and glass. All mechanical work in outside walls to allow flexibility of interior arrangement."

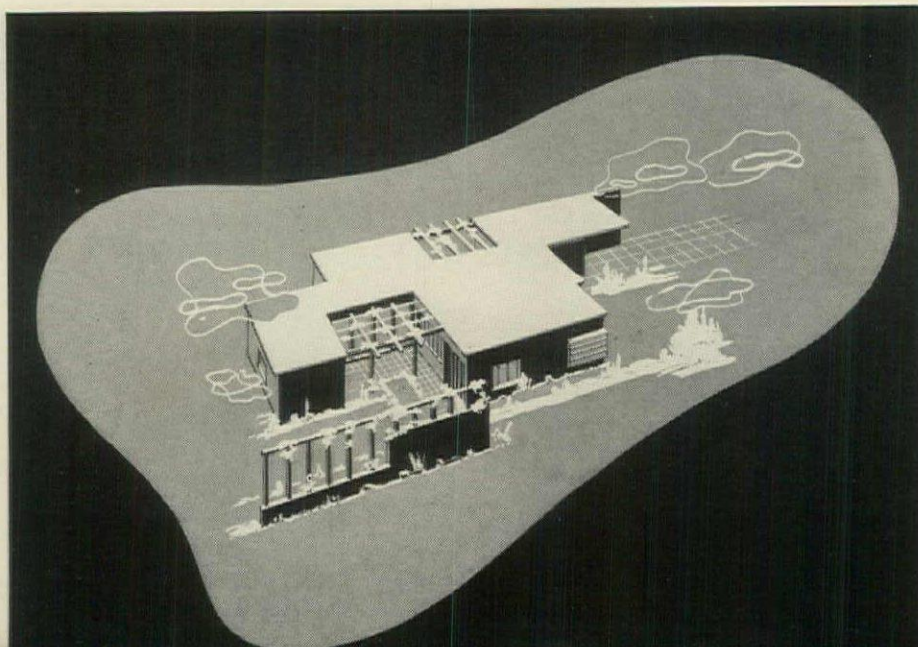






### "THIS 194X HOUSE —

- Is a development of basic structural-unit prefabrication, leaving all the freedom to exercise one's expression in design.
- Has maximum amount of vista from every room.
- Has sleeping quarters completely isolated from living quarters.
- Has made outdoor living a part of indoor life.
- Has given privacy to outdoor living.
- Has eliminated the dark corridors of the average house.
- Has possibilities of expansion.
- Is not designed to encourage the American people to live in an atmosphere of complete standardization. When we have won the war we shall have won over the protagonists of regimentation. The expression of design of the average American house must reflect the strong individualism of the American citizen.
- Shall, however, utilize all of the gifts of modern science in our daily living and use them only to such extent that this civilization shall never regret its failure in esthetics.
- Therefore should strive to develop a method of prefabrication that would never interfere with the citizen's expression in design. Exaggerations in prefabrication may retard development and bring about stagnation in living and thought.
- Should be a development and result of mass production only in the prefabrication of structural units, such as a skeleton of partitions, floors, ceilings, bathrooms, kitchens, etc."

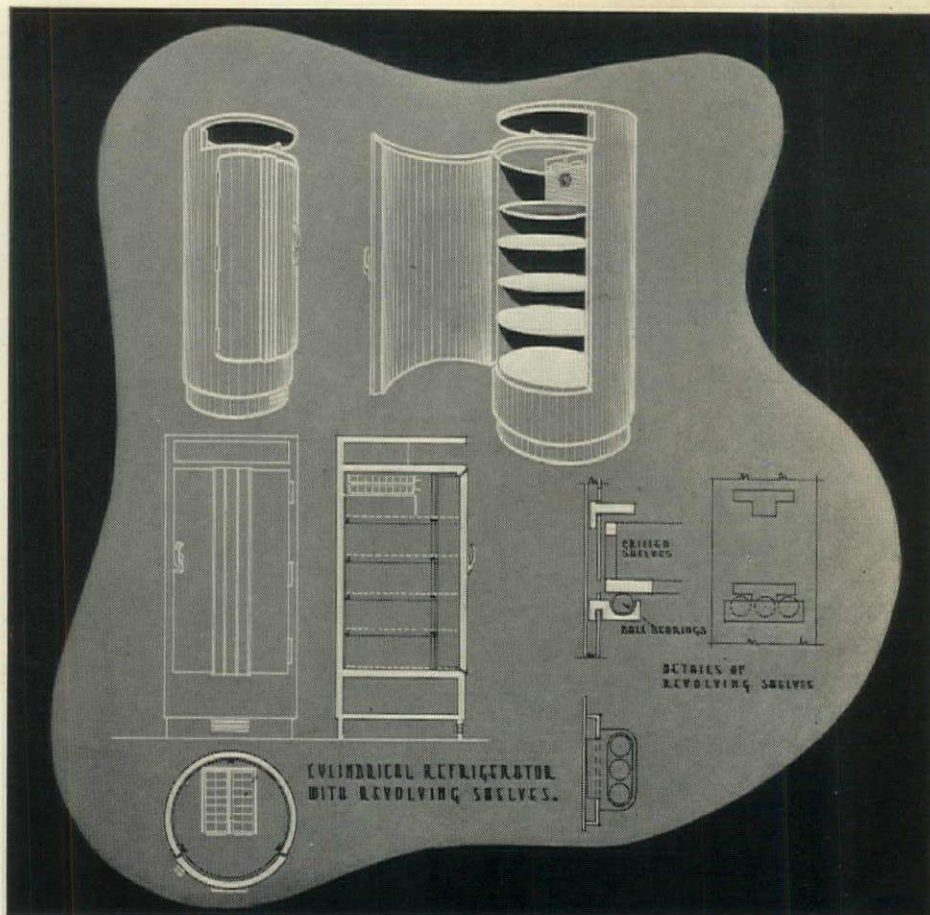


ZAREH SOURIAN



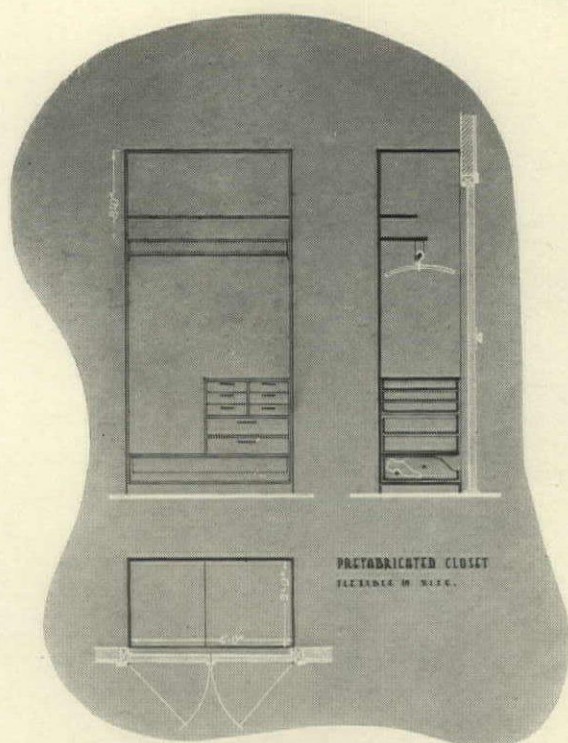
Designer, New York City, he is an Armenian born in Constantinople who came to the U. S. to study journalism but switched to architecture and the Massachusetts Institute of Technology. He designed a sidewalk café for the St. Moritz Hotel in New York, the Café de la Paix, has been active in industrial design and is currently working on war housing.





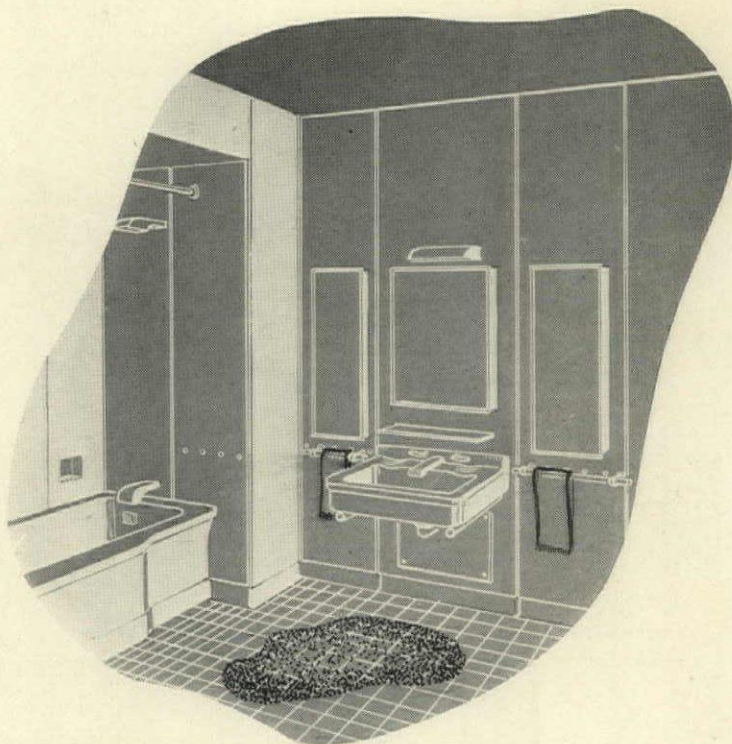
#### "THIS REVOLVING CYLINDRICAL REFRIGERATOR—

- Enables the user to bring every article within easy reach, by revolving the shelves.
- Eliminates dead spaces in the refrigerator.
- Costs less to manufacture.
- May be made from plastics.
- May have gridded, transparent plastic shelves.
- Is easy to keep clean.
- Has adjustable shelf adapters.



#### "THESE PREFABRICATED CLOSETS—

- Are so designed that they may be installed before the walls of the house are finished.
- May be manufactured so that walls, ceilings, floor, utility shelves and lighting fixtures are all within the unit.
- May be made in sections so that closet space may be enlarged or reduced according to needs.



#### "THE WALLS OF THIS BATHROOM—

- Should be made by the manufacturer of bathroom fixtures.
- Are designed so that all wall units are prefabricated together with the base, floor and ceiling and are fitted together on the job.
- Have within each unit hook holes for attaching towel bars. These holes are continuous at a given height along the wall.
- May be made in metal, wood, plastics, glass and/or other compositions.



"The dwelling of 194x is not an isolated issue, but one woven into the fabric of postwar economics at large.

"As a product, that dwelling depends on a vertical technological integration, on the harmonized use of material resources, made newly accessible through war industrial expansion, and on the conversion of tools, equipment and re-skilled labor, toward the creation of dwelling manufacture, as the most ample peacetime work-reserve of all.

"As a consumers' commodity, it calls for the horizontal integration of planning for mass acceptance by controlling the character of subdivision layout and land use, to suit shop fabricated dwelling types, and by budgeting and financing their easy purchase and maintenance.

"Industrial capital and labor in search of postwar employment, and planning boards, to win the peace, must focus their attention on this broadly ramified issue of dwelling supply in re-urbanized and rural areas.

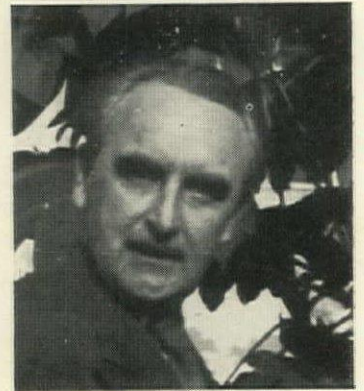
"The current study, although intended to demonstrate in breadth and depth the problematics of such postwar planning, concerns itself largely with one of the new elemental materials, its development, combination and application to housing.

"Fundamentally the book of civilization can be treated as the Story of Substances, discovered, composed and fitted for human use. Diatomaceous earth and its derivative products may fill a chapter in this book of substances, and that of human shelter as well.

"*Diatom* is the primary ingredient of the dwelling construction which I have studied for two decades on the basis of successful European precedent. Microscopically small infusorial sea shells, piled up to big layers geological ages ago, Diatom earth is easily mined by an industry which is ready to turn to all-round structural and house fabrication of first magnitude. The material is combined with a few others, cement, wood-fiber, plastics from agricultural waste products and aluminum; all available on the Pacific slope, as well as in many other states. The Western deposits of Diatomaceous earth, however, are the most prominent of the world, and a resource still little tapped. They find their equal only in Diatom deposits of the Atlas mountains, North Africa.

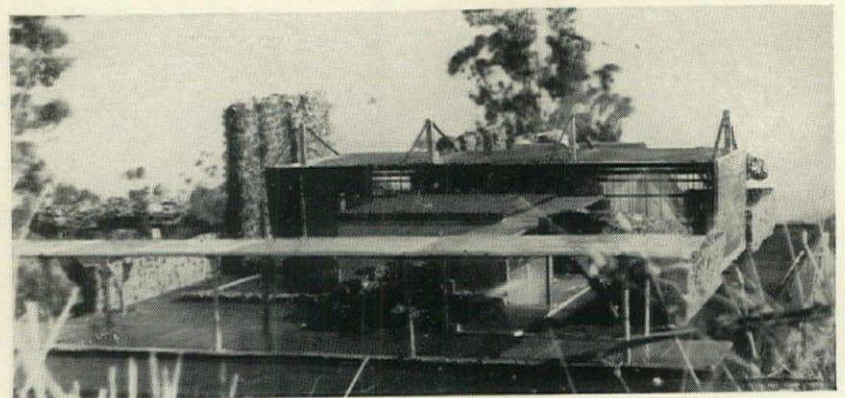
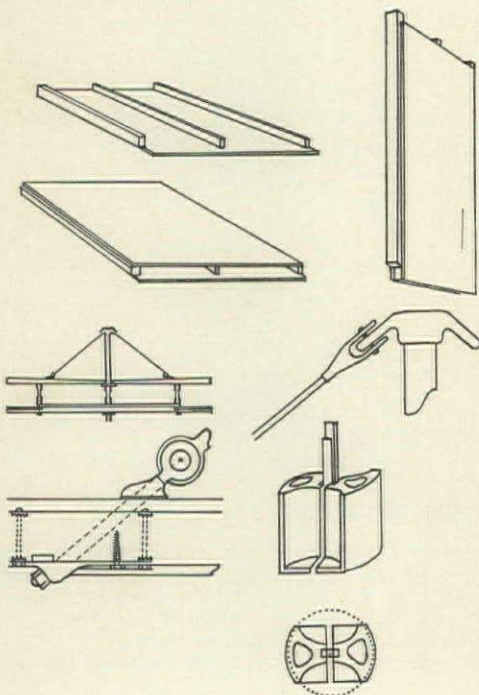
(Continued on page 110)

## RICHARD J. NEUTRA

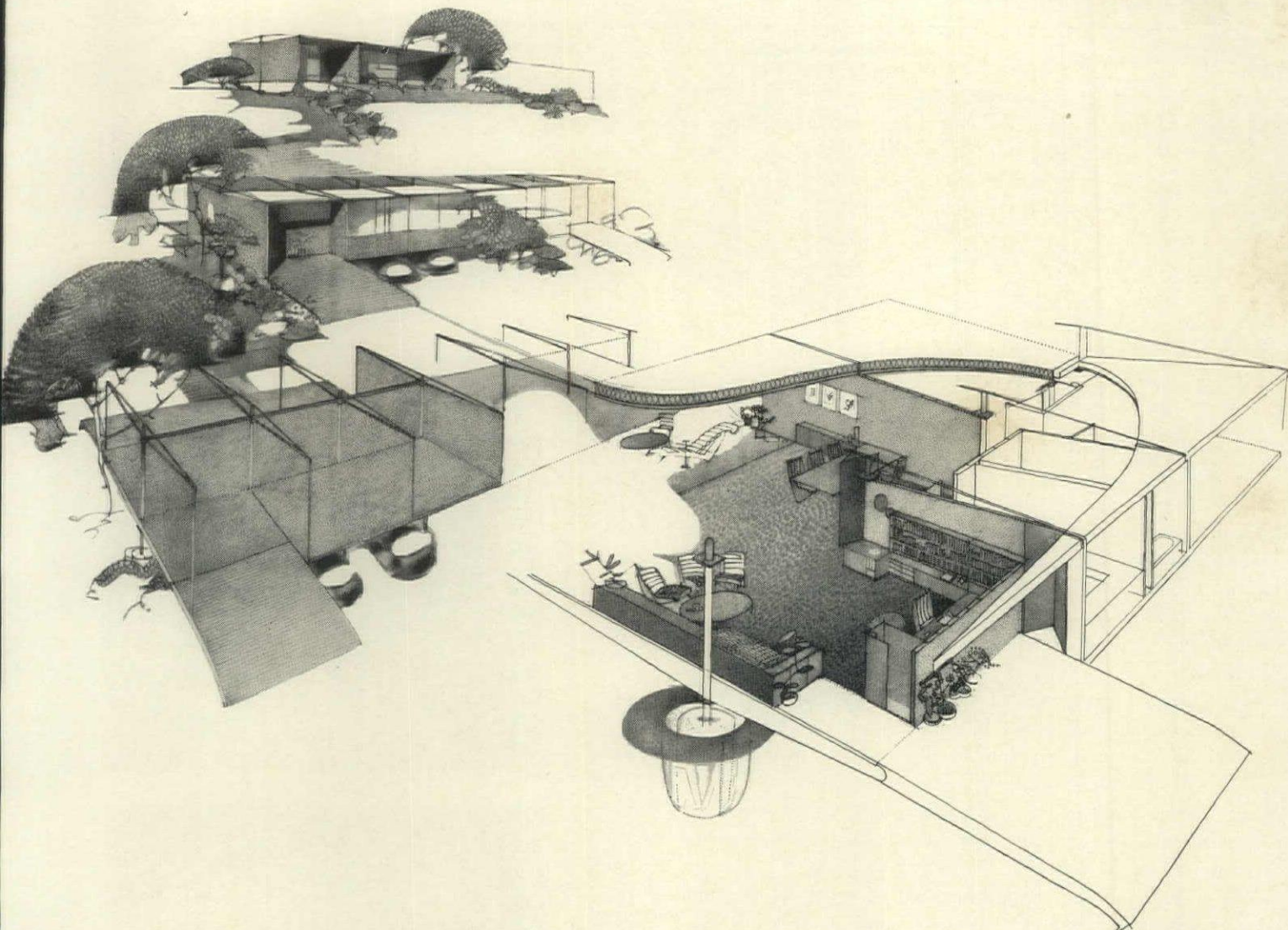


Architect, Los Angeles, Calif., he studied at the Universities of Vienna and Zuerich. Since 1923 he has worked in the U. S., practicing architecture in California, writing books and lecturing at various universities. He was among the first to advocate and practice prefabricated house construction.

### 1920 - 1930

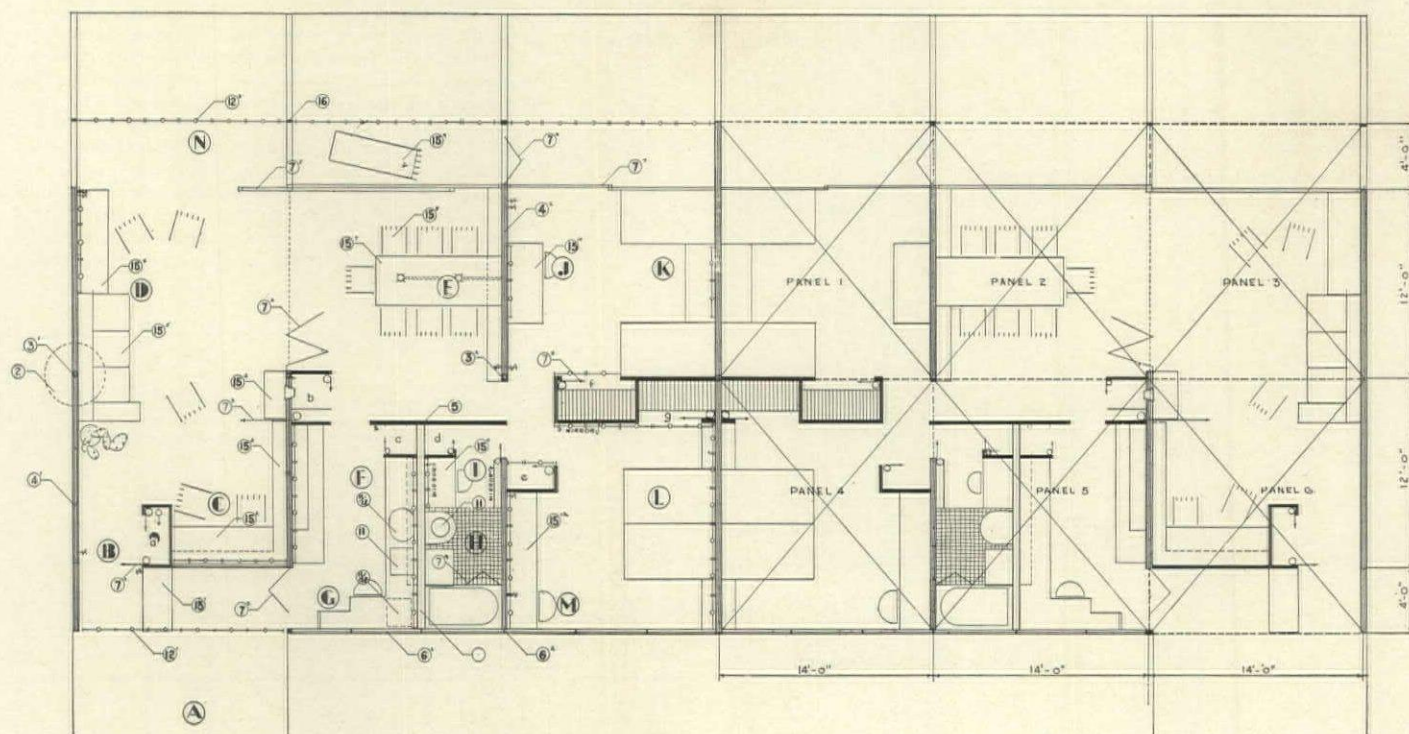




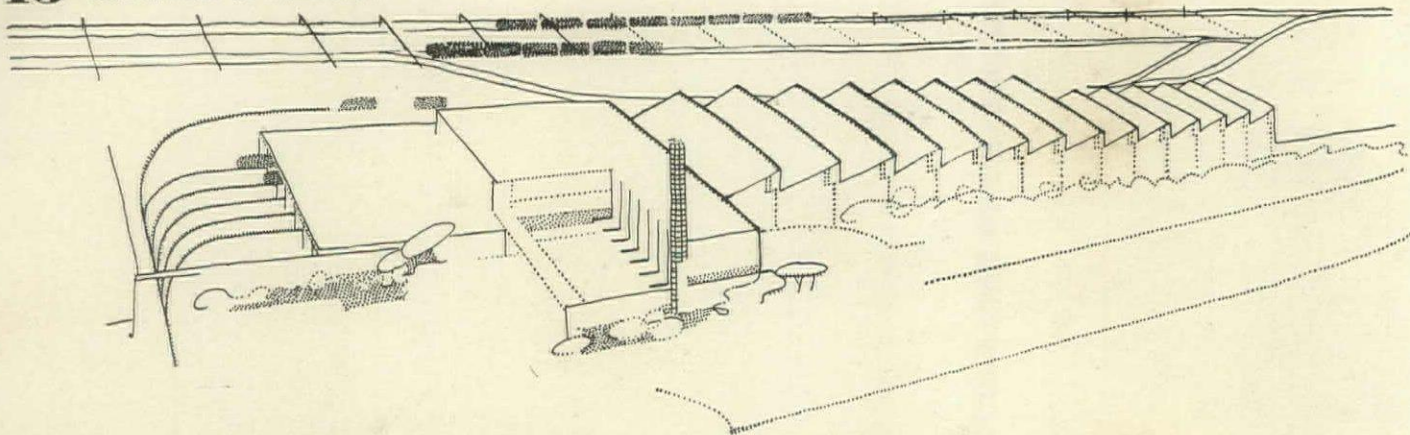


# KEY TO PLAN

A. Entrance floor panel. B. Entry with coat closet. C. Writing-reading and study. D. Social sitting. E. Eating and playing. F. Cooking. G. Receiving and accounts. H. Bath. I. Dressing. J. Children's writing, etc. K. Rest for children. L. Rest for parents. M. Writing and study. N. Outdoor extension of D. & J. a. coats, b. play equipment, tables & speaker, c. broom & cleaners, d. bath & dressing robes, e. linen, f. hanging closet, g. hanging closet.







Photos, Julius Shulman

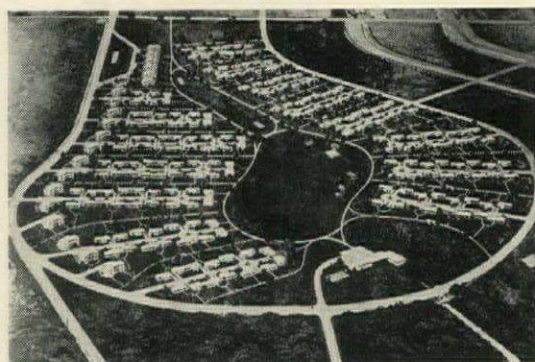
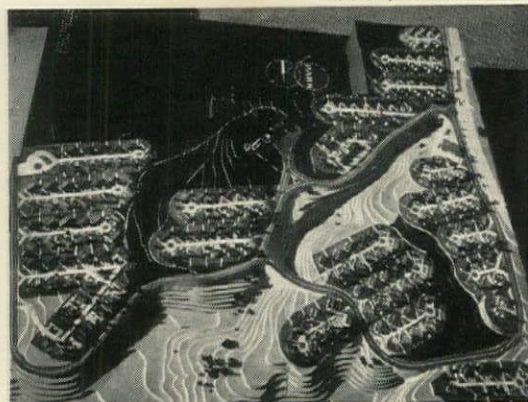
"The final commodity is a plant-produced dwelling, field assembled from fifty-odd prefinished elements according to production drawings, in a working period of several hours.

"Following experience in a production design for inter-city busses, I have also elaborated plans for the required production plant itself. Inasmuch as the dwelling layout is governed by general site plan and grouping, I have tested it in a spirit of careful anticipation for varied subdivisions, ground configurations and exposure conditions in the Southwest.

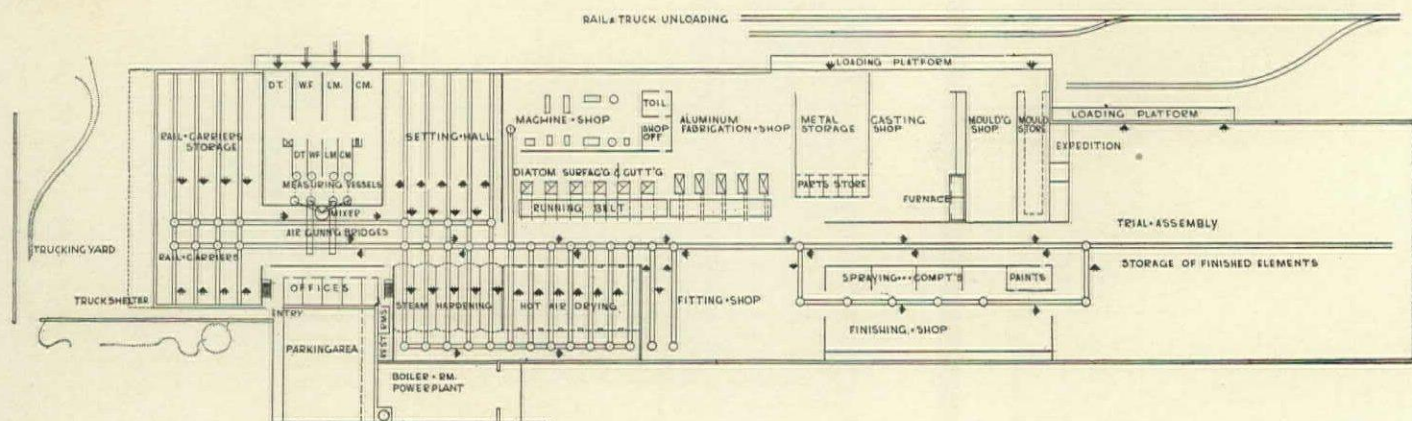
"The significant properties of Diatom composition are light weight, fire-resistance, superb insulation value, potential structural strength, a capacity to be reenforced and weatherproofed, workability for wood machining-tools, imperviousness to microbic and insect attack. The design of these lightweight, gravity- and lateral-stress, resistant dwelling types starts from the chemistry and the mechanical compactness of this synthetic structural material.

"It is a mineralized composition, shop-formed by airgunning into slender structural members, hardened under 6 atmospheres of steam pressure and dehydrated by hot air. The described Diatom composition is designed in a series of special combinations, to answer a number of variegated requirements, but in principle it resembles a hydraulic binder with calcium hydrate, a fibrous material and resin, together with a large proportion of Diatomaceous earth. Its low weight, 40 lbs. per cu. ft., is further decreased for certain purposes by admixture of Naphtalin as an evaporation agent, to give porosity to the material. The composition excels in low specific gravity, in the well-known low thermal conductivity of Diatom compositions, fire resistance to 1,000 degrees Celsius, in simple workability, in the precision of sections without shrinkage and in considerable structural strength. Crushing strength 1,100 pounds per square inch."

(Continued on next page)



"Diatum Dwelling plant for 194x (below). Raw materials, diatom, wood fiber, lime, cement, accessorial aluminum enter from trucks and rail-sidings. Through measuring vessels, they are discharged into the mixer and gunned into forms on carriers. The form pieces travel through the setting hall and the steam-hardening compartments into the Dehydration plant, and from there over the running belt along the surfacing and cutting machines into the fitting hall. Assembled with accessorial aluminum parts, they are then prefinished and finally assembled into pre-fabricated elements. They again leave the factory on truck and rail."







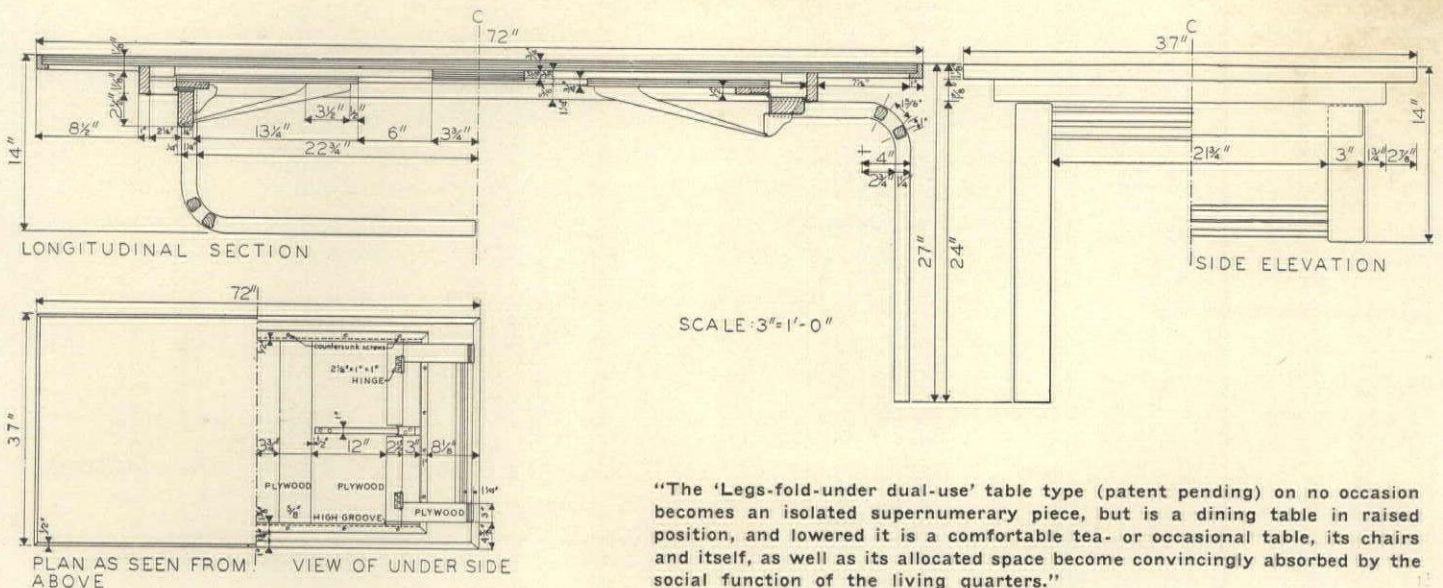
Photos, Julius Shulman



"A static dining table calls for allocation of at least six chairs always assembled around it, or else the table appears orphaned and unsightly. This entire furniture group of part-time use requires ample space.

"For structural members, like beams and roof slabs, aluminum reinforcements are used, and figured similarly to the computation for reinforced concrete. A double shell wall with  $1\frac{1}{2}$ " is in its insulation value equivalent to a 12" brick wall, with only one-twentieth of its weight.

"For complete prefabricated imperviousness of exterior surfaces etc., the slabs before hardening, are shop-sprayed with a compound of hydraulic binder, water-repellent Ceresit or 'Colophonium,' filler pigment and Diatom powder, (to increase the interaction of the binding agent of upper and lower layers). Afterwards, the steam hardening of base and surface is accomplished in one process. No subsequent mechanical action can separate the surface layer from its base, and the perfect repulsion of moisture keeps the thermal conductivity on a permanent level. Field surfacing is eliminated as a matter of course.



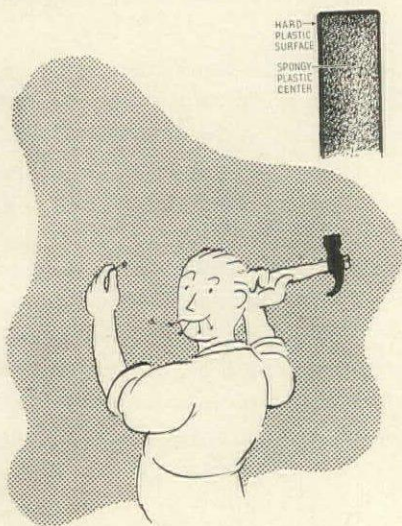
"The 'Legs-fold-under dual-use' table type (patent pending) on no occasion becomes an isolated supernumerary piece, but is a dining table in raised position, and lowered it is a comfortable tea- or occasional table, its chairs and itself, as well as its allocated space become convincingly absorbed by the social function of the living quarters."



GILBERT ROHDE

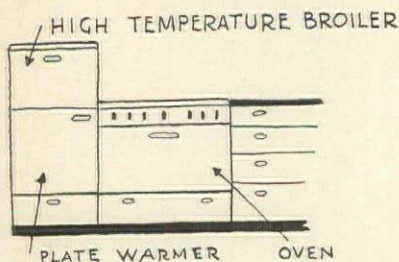


Industrial Designer, New York, N. Y., he is a pioneer in the field of industrial design, especially as applied to modern furniture. He designed exhibits for Rohm and Hass (plastics) and the Anthracite Industries at the New York World's Fair, and is consultant designer to the Hudson Motor Car Co. He is head of Industrial Design courses at New York University.



scratches or nicks can be filled out, and when the spot is sanded it will appear like the original surface. No painting or papering will be necessary.

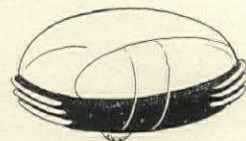
"A possible competitor for this material would be a lightweight metal alloy that will weather to a pleasant color ('pleasant' as defined by a color expert) and resist even salt vapor. After the war lightweight metal *could* be dirt cheap, depending partly on book-keeping and partly on the administration. Advantage of plastic walls: Will keep pulp and plastic manufacturers busy. Advantage of light metal: Will keep aluminum and magnesium plants busy.



dition, but with a new tradition fast developing. If logic is to have any place in the new house, kitchens will be built-in to an even greater degree than at present. That will make possible a RANGE with the broiler in an elevated position, as were the early gas ranges and as are today the very-efficient restaurant broilers. The REFRIGERATOR will be very wide, shallow at one end, and as deep as a watermelon at the other, making it unnecessary to remove most of the contents of one shelf to get at the back. Doors can be transparent, because contents will be neatly arranged.

"In America, happiness is measured by the number of vacuum cleaners, refrigerators, automatic irons and toasters in common possession. A multiplicity of these blessings makes the owner happy, the designer happy and the manufacturer happy. "After the war, therefore, we may expect to reach a heretofore inconceivable level of bliss, for industry is even now preparing for conversion of war-expanded production facilities which will veritably inundate us with more and better gadgets. We will look back with horror upon those dark ages when we had to be content to plod along in an automobile with an engine in the front. How much happier now, when, indeed, one cannot even tell which is the front!

"Most of the genius will, of course, be spent upon devices and processes related to the HOUSE, and while the promised Utopia via Prefabrication and more gadgets will not quite materialize, look to this field for something of social value. In addition to the solution of many imaginary problems devised for the sake of solving them cleverly and keeping overplanted industry occupied, we may expect some real solutions that will have both economic and comfort value.



"Since the house as a whole will be considered by architects elsewhere in this issue I will confine my remarks to technical matters with which the industrial designer has contact, and elements that relate to conveniences but are not exclusively architectural.

"**WALLS.** Wall slabs may well be a form of plastic that the designer has dealt with for a long time without thinking of it as a structural material—a combination of SUB-PLASTIC and plastic. Such a sheet would be molded so that it varies in density from surfaces to center—the outside fully plasticized, strong, abrasion- and weather-resistant, varying gradually without any definite line of demarcation to a soft, spongy and almost unplasticized center with good thermal and insulating properties. The slab would also have the hard surface on all edges.

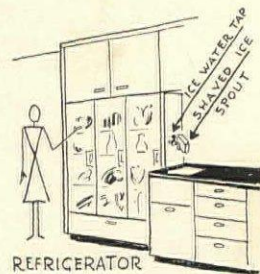
"The face of the material that is to be the inside wall of the room would be covered over the entire surface with tiny, closely spaced holes filled with a semihard black or brown substance. These dots would not be apparent individually but would merely gray the wall color. Into these holes any number of nails could be hammered, passing easily into the softer center of the slab. When pulled out the dark-walled hole made by the nail would appear to the eye the same as the filled hole, so that the wall would not be marred no matter how many different families hung pictures in different places, or even suspended wall bookcases.

"Color would be incorporated into the surface plastic to a depth of at least  $\frac{1}{8}$  in., the inside having a finish similar to that produced by sandpaper. Thus



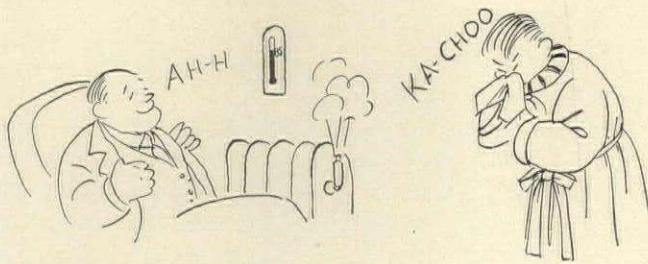
"**FLOORS.** A sub-plastic, with non-absorbent but flexible surface, bonded as one to a resilient base, or, as in the case of walls, gradually changing from a non-porous to porous substance. Or, a non-slip rubber (since this will be a synthetic there is no class difference between plastic and rubber). Neither will require varnishing or waxing, but wax might be incorporated in the composition of the material.

"**THE KITCHEN.** Ah yes, the kitchen. One of the two rooms in the house not burdened by old tra-



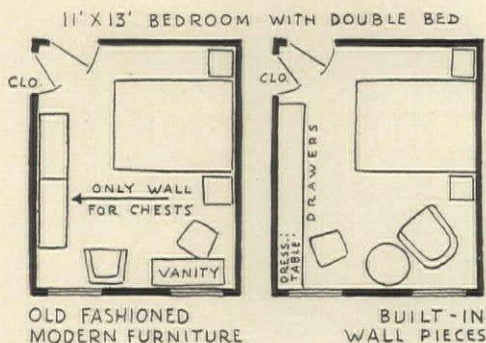
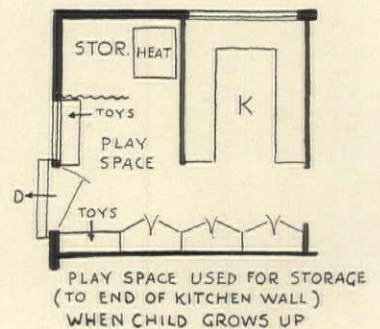


**"BATHROOMS.** Details could stand improvement. Soap dishes should be arranged to drain off so that soap will not turn to jelly in the dish. To reduce variations in temperature of water supply to shower and mixing faucets, separate pipes for hot and cold water can be brought directly from tank, or individual automatic electric water heaters can be installed at each valve (or for shower and basin together). There will of course be no cloth towels. Instead, a very superior material will be developed, absorbent, soft enough for a baby's bottom or a movie star's hands, strong, lint-free and cheap, so there will be no need for heated drying-racks for towels (the used towels will be used over again by the same factory to make the inner portion of the sub-plastic wall material). To prevent or remove condensation on the bathroom mirror a low-temperature heating element can be incorporated in the back. Beyond this I would not go, since Great National Danger exists in pampering ourselves beyond a certain point. Eventually, we may become prey to Races who have remained hardy because the temperature of their showers varied a bit.



**"HEATING.** Even more important than *kind* of heat is *less* heat in American homes. The need for *moist* heat is next in importance as a matter of national economics. The thousands of work hours lost and miserably spent with colds due to overheated arid atmospheres could be almost eliminated by better heating. But, education must be the corollary of better gadgets, for Americans have grown to insist on over-hot rooms. For health a combination of radiant heat and forced air for ventilation would probably be best.

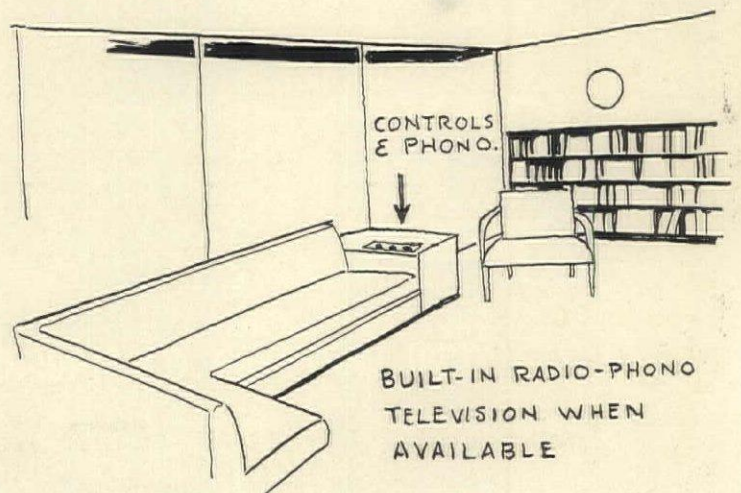
**"STORAGE.** The small room designated 'storage' in the projects for low-cost housing apparently presupposes that the inhabitants are torpedoed survivors just off a life raft. Even common folk have winter overcoats, a few handbags, a trunk, perhaps rubber hip-boots and fishing tackle. There are the children's toys, baseball bats and a 'toddler' which must be kept for the next baby after the first has outgrown it, a go-cart, card table and folding chairs. This storage space, located near the kitchen in almost all plans, should be large enough to provide a small playspace for children on rainy days, so located that it is easily visible to mother as she goes about her tasks in the kitchen, but out of the way of her feet. If in this small space there are a few shelves for toys, the children will regard that as their place and be happy there most of the time. This space can be devoted entirely to storage later on.



**"FURNITURE.** All 'wall pieces'—chests, cabinets, anything that now remains in position against the wall—will be built-in as part of the house, just as the huge '*shrank*' or '*armoire*' disappeared into the wall as a clothes closet. Not that these chests will necessarily disappear *into* the wall; they will merely become part of the house. Pieces 30 in. to 40 in. high are in fact more useful projecting into the room than flush with the wall, for their tops provide needed shelf and table space. Such extension of building-in of furniture will be an unmitigated blessing. For one thing, it will unburden the family of bulky positions. For another, it will be cheaper. Third, space organization will be better because furniture will be built to fit.

"Some housewives aspiring to be decorators may feel that they are deprived of the means of expressing their personality in furniture arrangement if they cannot move the dressers and buffets around. Let them not fear. The facts of the case are that most rooms as they are today permit little 'moving around.' One is fortunate if wall space is found long enough and in a reasonably convenient location for the wall pieces; there is little, if any, choice.

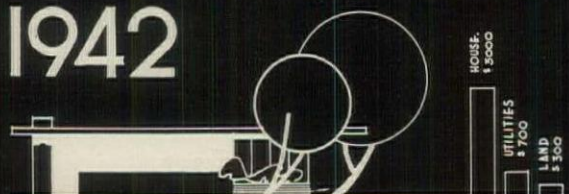
"Large sofas may also be built in, with radio and radio-television controls in the arms, but I cannot see the benefit of tying chairs and tables to the walls. Such efforts always seem to me the efforts of a designer merely to carry an idea to its logical conclusion, which the Romans found 'way back always ends in an absurdity.'





Mr. Perkins comments as follows on the background of this project: "I have long felt that the problem of the small house for the low-income worker must be attacked from many basic points of view. This study, therefore, attempts to suggest by means of diagrams and sketches the basic factors to be considered. Rental savings could be made through changes in methods of financing, through control of land use, through more economical site planning and through economies in construction costs. Coupled with these possibilities are those of preventing future slum conditions through planning. In connection with this project, it was our intention to present only the simplest visual summary of the paths to be explored by the construction industry in the small house field."

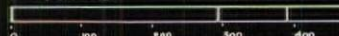
1942



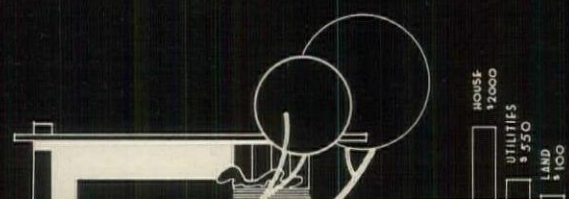
↑ THIS FOUR-THOUSAND DOLLAR HOUSE RENTS FOR

FINANCING  
AT 5% ON 4000  
& AMORTIZATION  
20 YRS ON HOUSE

TAXES UPKEEP  
AT 2% / 1000 AT 2% OF  
ASSESSMENT AT 4000  
80% COST



$$\frac{480}{12} = \$40$$



THE SAME HOUSE, THRU  
IMPROVED CONSTRUCTION &  
PLANNING, CAN RENT FOR

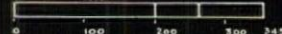
Modernization of building laws allows use of improved techniques and new materials. The building industry reorganized as large-scale enterprise permits economies of mass production, standardization and administrative efficiency. Stabilization of neighborhoods thru zoning and planning reduces wasteful road and utility installation and replacement. Stabilization of employment reduces labor costs. Elimination of the unearned increment reduces land costs.

$$\$27$$

THE SAME HOUSE, THRU  
IMPROVED FINANCING,  
CAN RENT FOR

FINANCING  
AT 3% ON 4000  
& AMORTIZATION  
25 YRS ON HOUSE

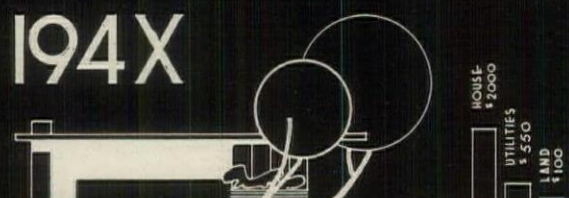
TAXES UPKEEP  
AT 20 / AT 2% OF  
1000 4000



Large-scale, planned communities provide security; lower mortgage rates—reduce depreciation; longer amortization period—eliminate costly changes in roads and utilities and prevent slums where taxes are insufficient to pay for services rendered; lower taxes.

$$\frac{345}{12} = \$29$$

194X



THE SAME HOUSE,  
THRU IMPROVED CONSTRUCTION, PLANNING & FINANCING  
CAN RENT FOR

FINANCING  
AT 3% ON 2450  
& AMORTIZATION  
25 YRS ON HOUSE

TAXES UPKEEP  
AT 20 / AT 2% OF  
1000 2450



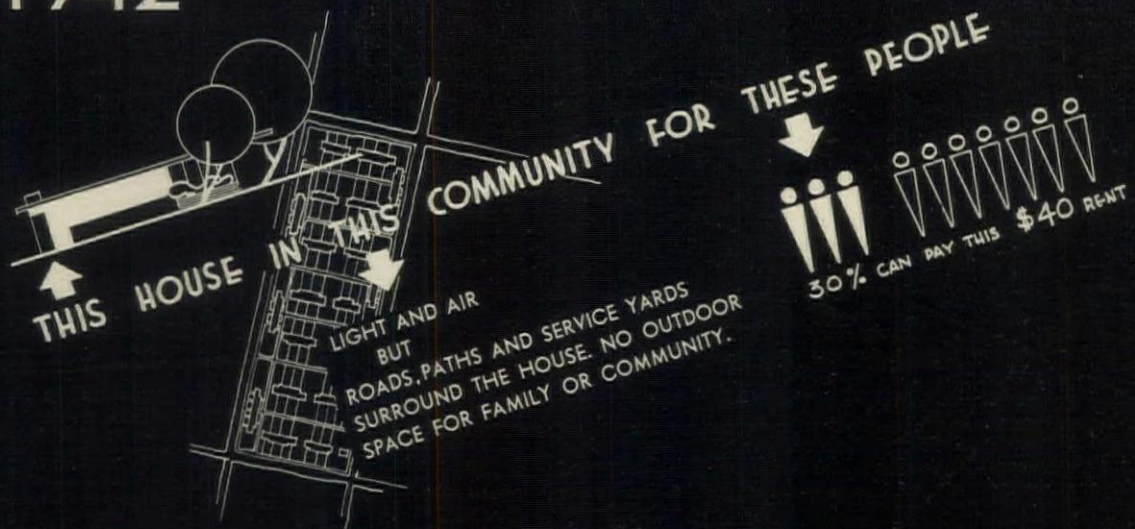
$$\frac{240}{12} = \$20$$



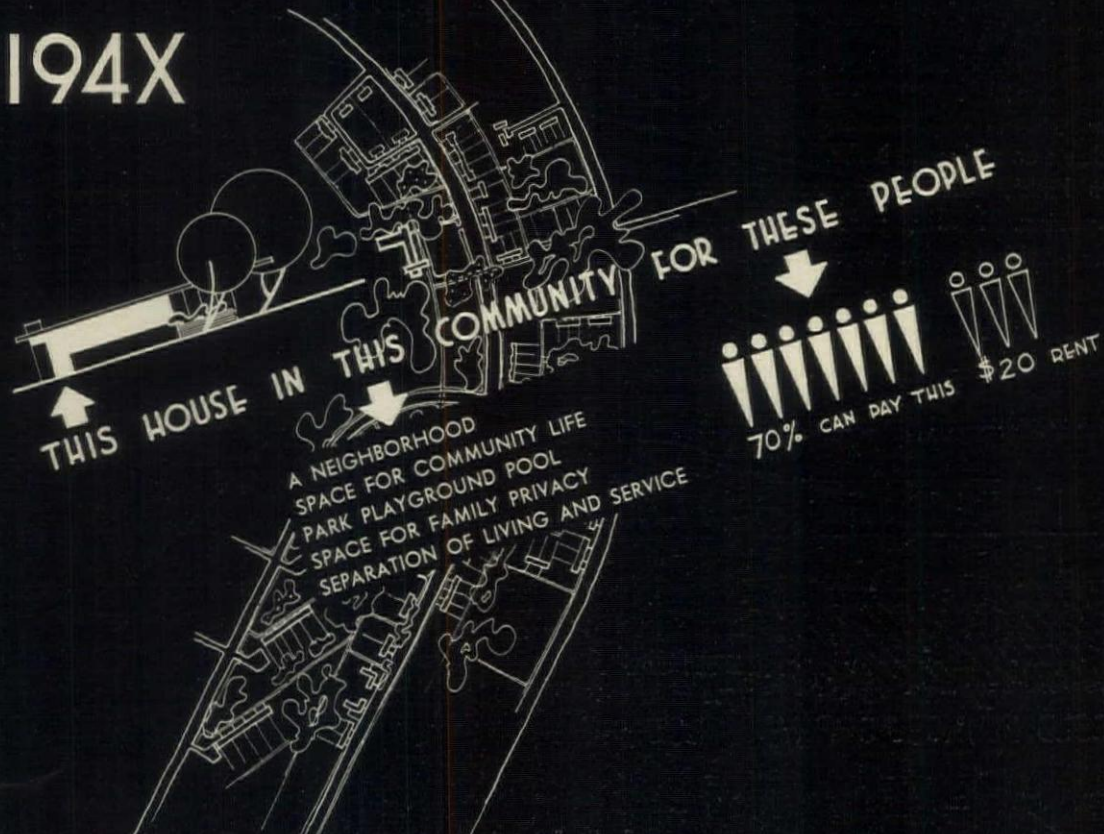
G. Holmes Perkins graduated from the Harvard School of Architecture in 1929, and has taught design and history at the University of Michigan and Harvard. He has been in practice in Boston since 1935, with work largely residential. He is at present on a leave of absence from Harvard, and is working in the National Housing Agency. Robert A. Little, also a Harvard graduate, winner of the Robinson Traveling Fellowship (1941), was a member of G. Holmes Perkins' office from 1939 to 1941. At present with the Navy Department in Washington.



1942



194X





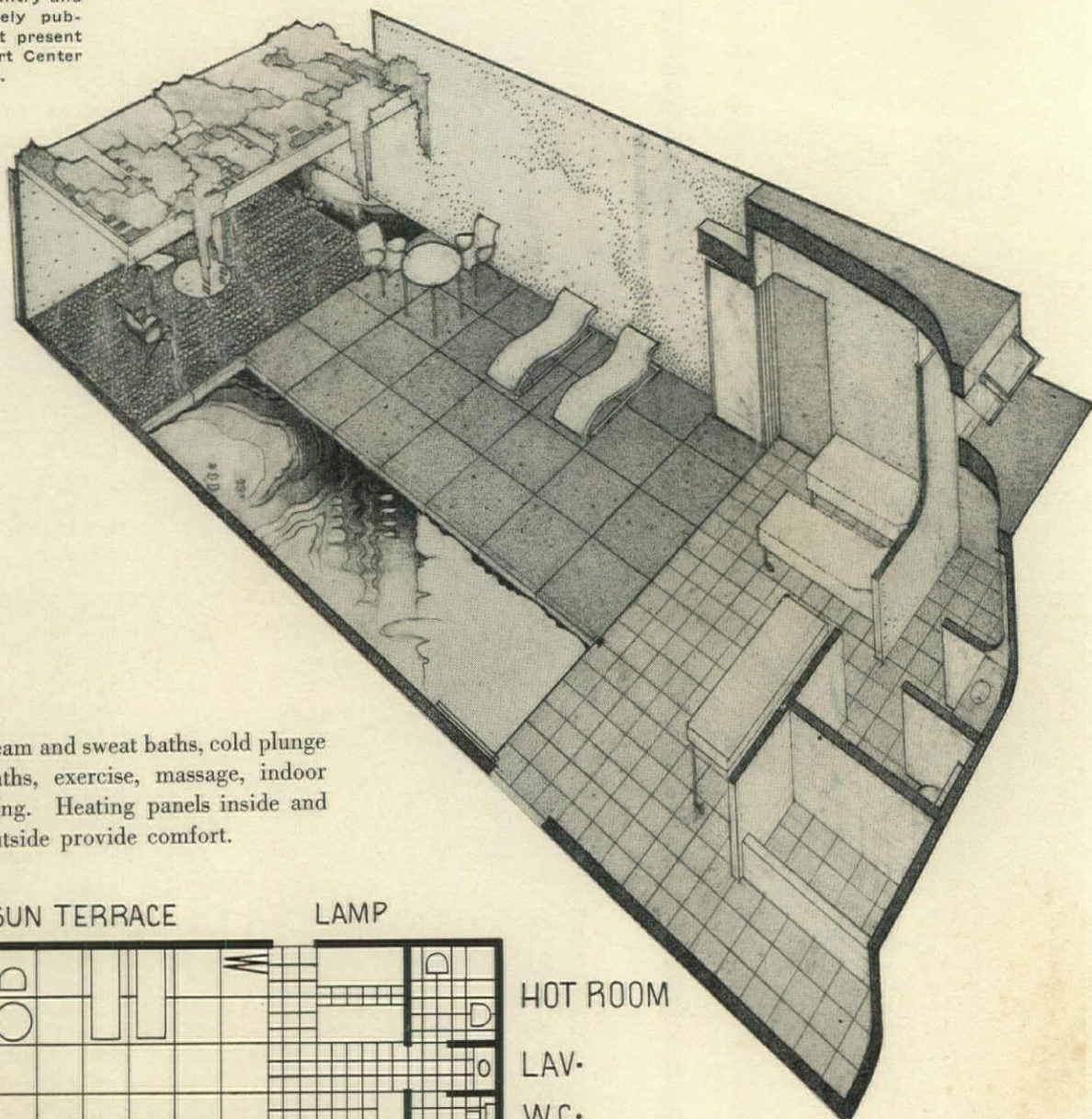
HARWELL  
HAMILTON  
HARRIS



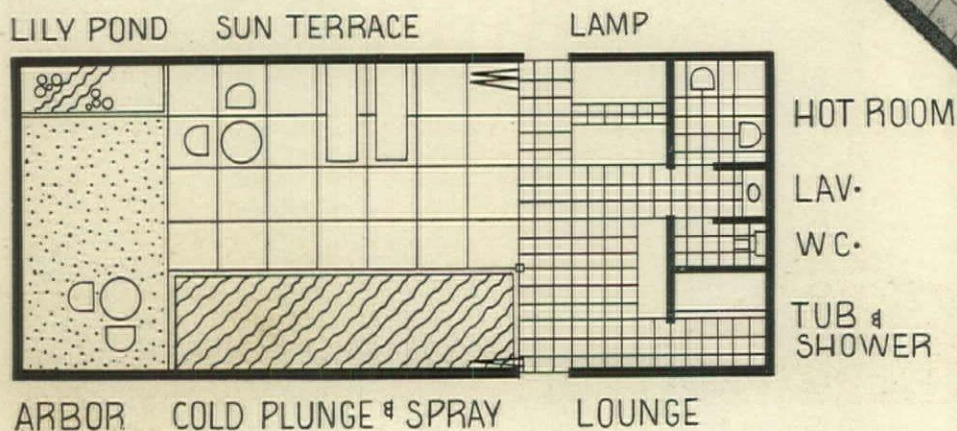
Born in California and educated at Pomona College and Otis Art Institute. Not an architect, as his letterhead proclaims, Mr. Harris has produced a series of distinguished houses which have won acclaim in this country and which have been widely published abroad. He is at present an instructor in the Art Center School at Los Angeles.

"In expanding one of the bathrooms of the house into a bathing lounge, a number of features have been added. The inside lounge shown in the plan might be enlarged to accommodate a larger number of people. For lounging as here contemplated will occupy an increasing part of the time spent at home. This will be due partly to increased leisure, partly to greater interest in physical health.

"As a special kind of living room, the bathing lounge will be developed in beautiful shapes and colors, with moisture- and sun-resistant fabrics. Furniture will be light, flexible and adjustable. Within the enclosed portion the heating will be through the floor and possibly the walls and ceilings. In the garden there will be low-temperature radiant heating panels of large area, fixed in the wall or on moveable screens. Bathing units will be built in. All equipment will be integral. And the garments will very likely be single-use throw-aways."



Facilities include steam and sweat baths, cold plunge and spray, sun baths, exercise, massage, indoor and outdoor lounging. Heating panels inside and radiating panels outside provide comfort.





EDWARD D. STONE, J. STANLEY SHARP AND  
COPE B. WALBRIDGE



Mr. Stone studied at the University of Arkansas, Harvard and M. I. T. and finished his student career with the winning of the Rotch Traveling Scholarship. His work includes a wide variety of distinguished residences, commercial and educational buildings. He is at present serving in the Army Air Corps. Mr. Sharp graduated from New York University in 1938, worked in the Stone office until 1941, and since that time has worked on several war projects as designer and draftsman. Mr. Walbridge is a graduate of the Yale School of Architecture, and was also a member of the Stone office until this year.

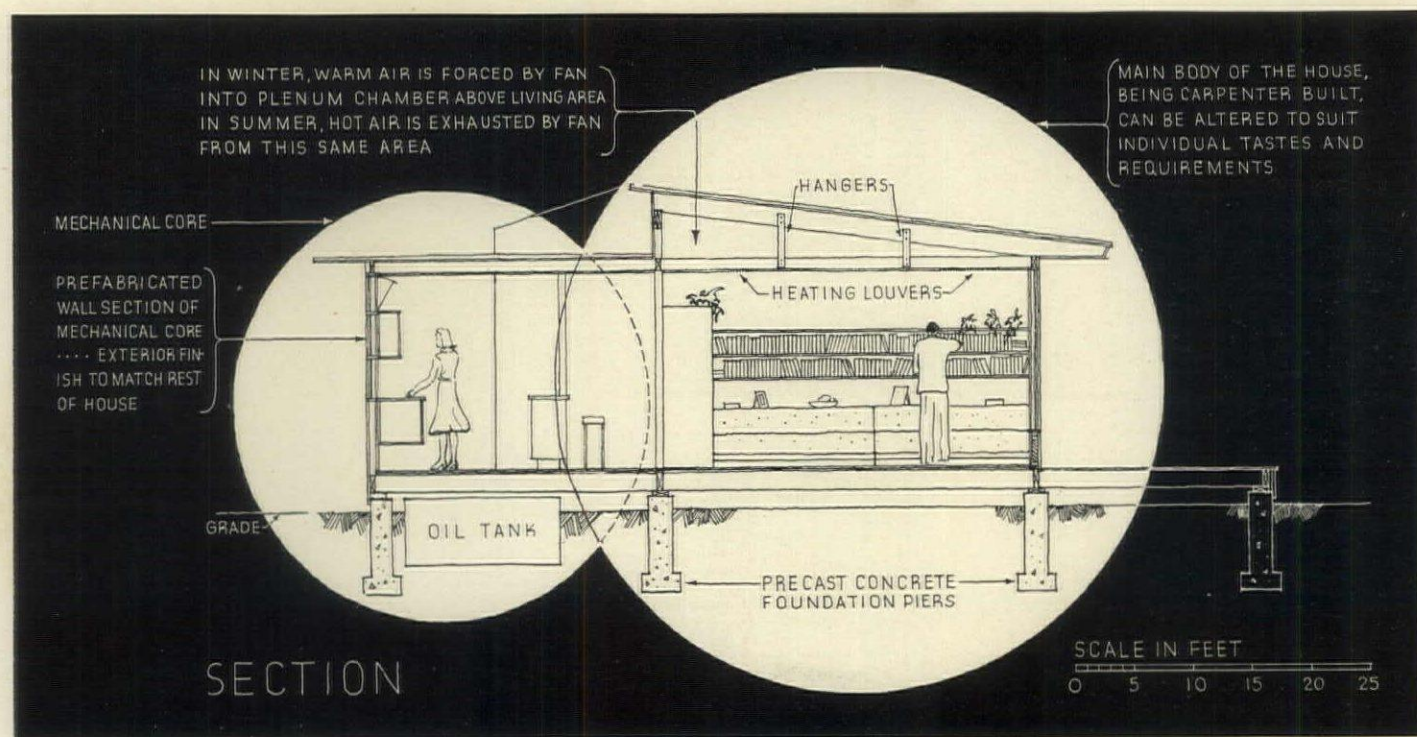
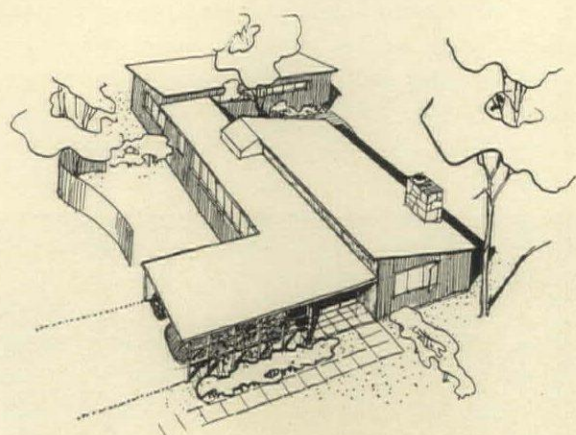
*"The purposes of this design are twofold: the reduction of cost through standardization of prefabricated units, and flexibility of use of the various areas to conform with the needs and desires of the average family."*

## PREFABRICATION

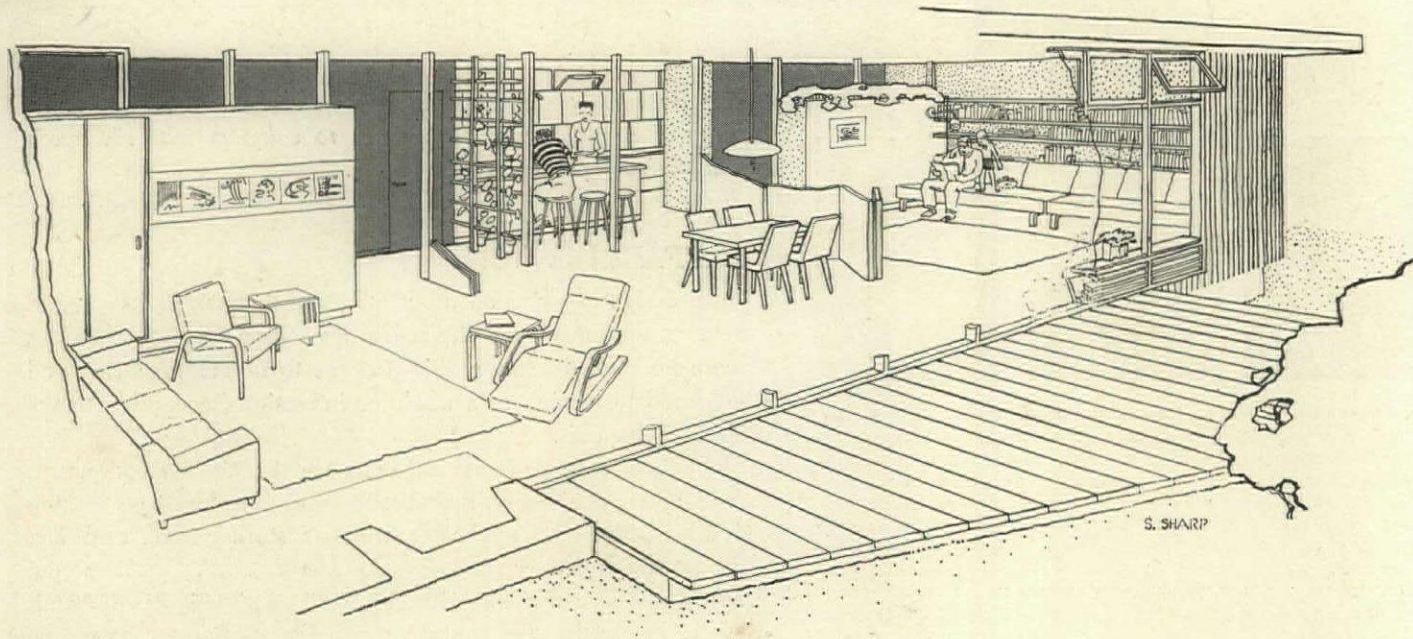
"The design is based on the assumption that the plumbing and heating equipment are planned in a package separate from the main body of the house, this package to be manufactured and delivered to the job as a whole or in sections, according to the size of the unit.

"Included in this mechanical core are the kitchen equipment, the laundry equipment, including washing machine and ironing facilities, the oil-fired heater with its storage tank and fan, the hot-water heater and all bathroom fixtures. Walls would be furnished complete with fixtures. At the job, the unit would be put in place on the rough floor. Roofing would be done by carpenters, who would also install the finished floor and ceiling provided by the manufacturer. The exterior of the unit could be left rough at the factory so that any finish could be applied at the job. The heating unit discharges warm air into the space between the roof and the ceiling of the main body of the house. Closet units and folding doors with their individual hardware, used in the living area, as well as a rolling or sliding screen to shut off the kitchen at the bar, would be included in the prefabricated equipment.

"The result of this concentration of a separate mechanical package is that the living unit, freed from plumbing and heating problems, is erected with comparative ease by local builders. The living unit could be planned on a system of uprights at four-foot intervals, the length and width of the interior space to be determined by the individual owner. The living units could be adapted to different sites by the introduction of steps for different levels, the use of various roof slopes, and any variations in plan prescribed by the terrain."

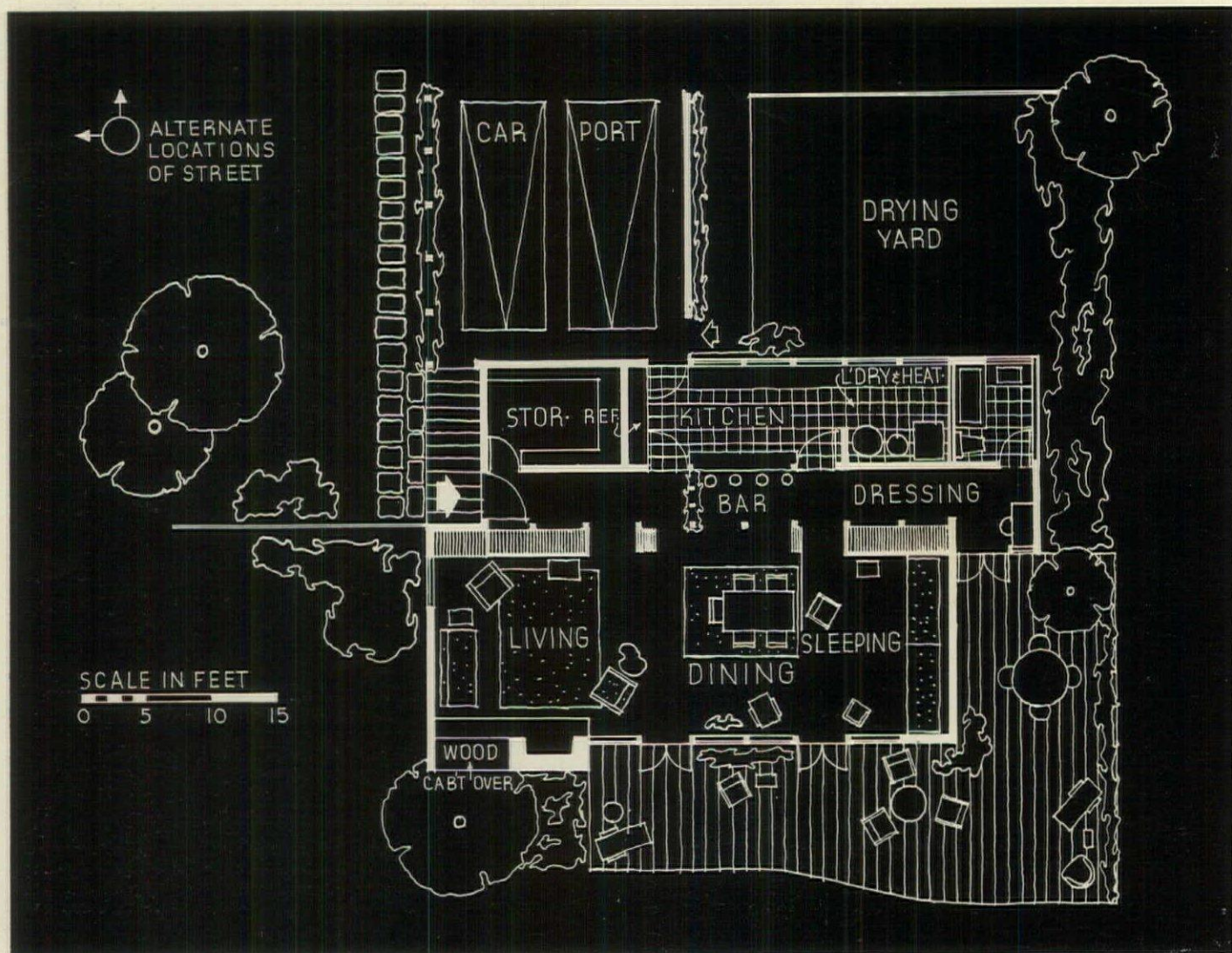




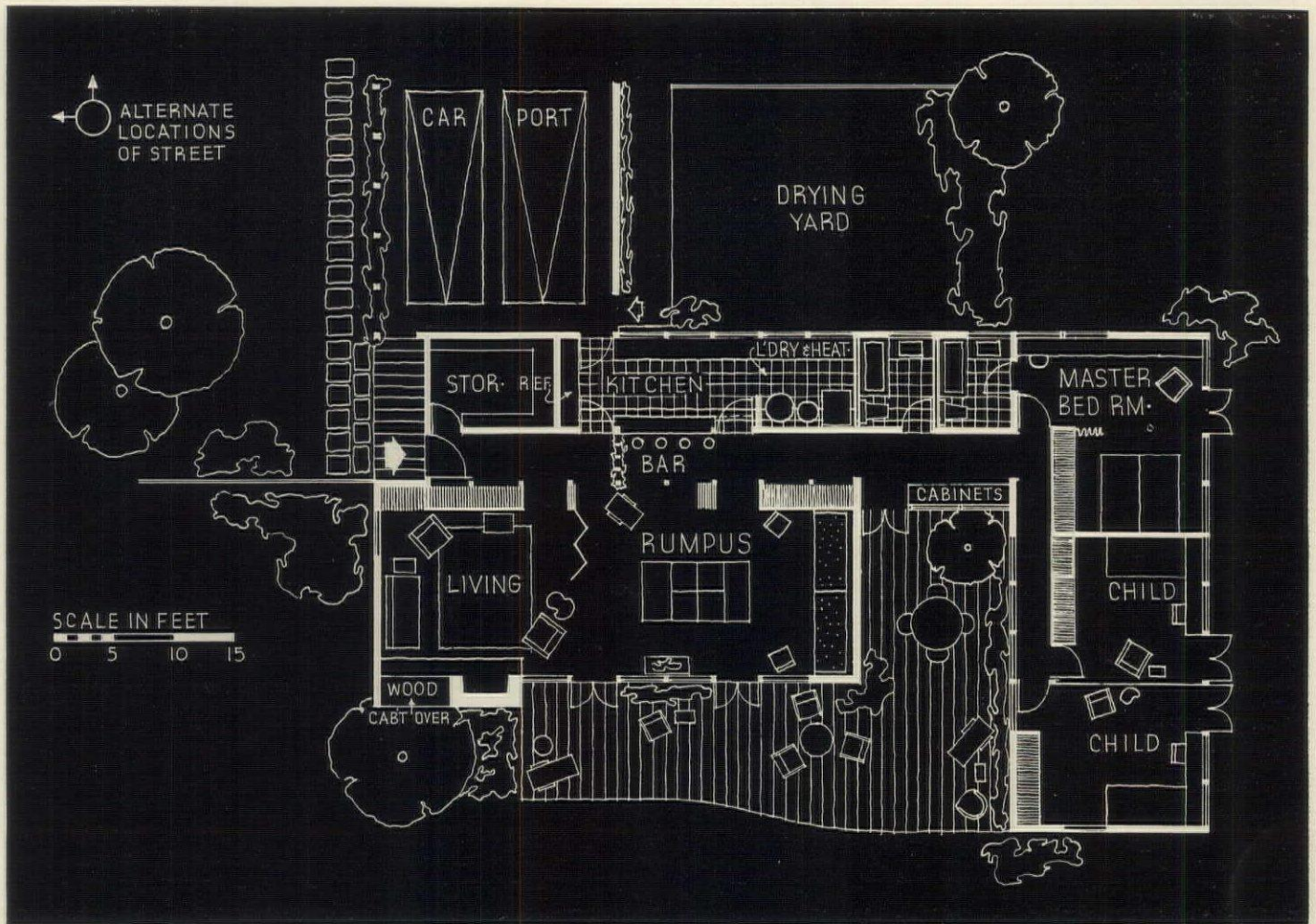


"Because of the great differences in individual requirements and tastes of owners, we have not planned prefabricated wall units, but have rather suggested a system of building which might be adapted by carpenters to any one of several types of wall construction as dictated by the

climate, the material available locally and the desires of the owner. In this way, not only will each owner feel that he has an individual house, but the difficulties of adapting a completely prefabricated building to many different sites are avoided."







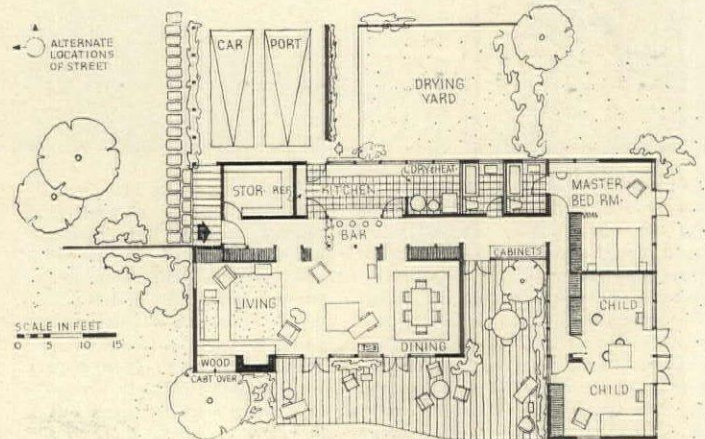
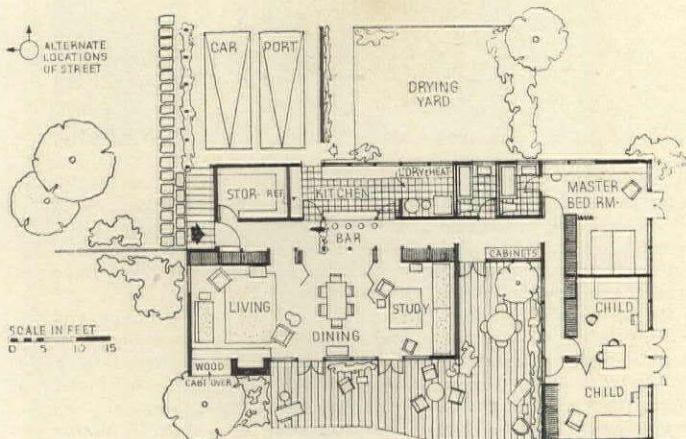
"The main body of the house is planned for maximum flexibility of use during the lifetime of an average family. Reference to the plans will show some of the different arrangements.

"The primary plan, on the opposite page, would consist of a space 16' by 40', divided into a living area (including dining) and a sleeping area which can be separated by a folding partition. The kitchen bar could open into the living room when desired.

"In the second stage of the plan (below, left) using the same type of construction, a bedroom wing may be added in one of several directions with as many bedrooms as

needed, leaving the original sleeping area to serve as a dining space, a study or a guest room. The children's bedrooms may be thrown into one playspace during the day. "A third plan (below, right) shows the original body of the house as it might appear with areas for living, dining and study, each capable of being separated from the others by screens, curtains, etc.

"In the fourth plan, above, the need is recognized for a play space, and the plan of the original house is shown arranged for a large recreation area, while still retaining a comfortable private sitting space by the fireplace. The kitchen bar in this case would open into the rumpus room."





"The purpose of these units is to divide a large single space into two or more articulated areas for particular functions. The partitions are so designed as to be easily and securely set in place in any desired position relative to permanent walls and partitions without marring finished surfaces, and easily re-located at will. The size of the units could be varied to meet almost any requirements, but it is suggested that they range in width in modules of 2 ft., with the 4 ft. width predominating. They are stored, when not in use, in special storage compartments at convenient points.

"A few of the features obtainable with the proposed units are:

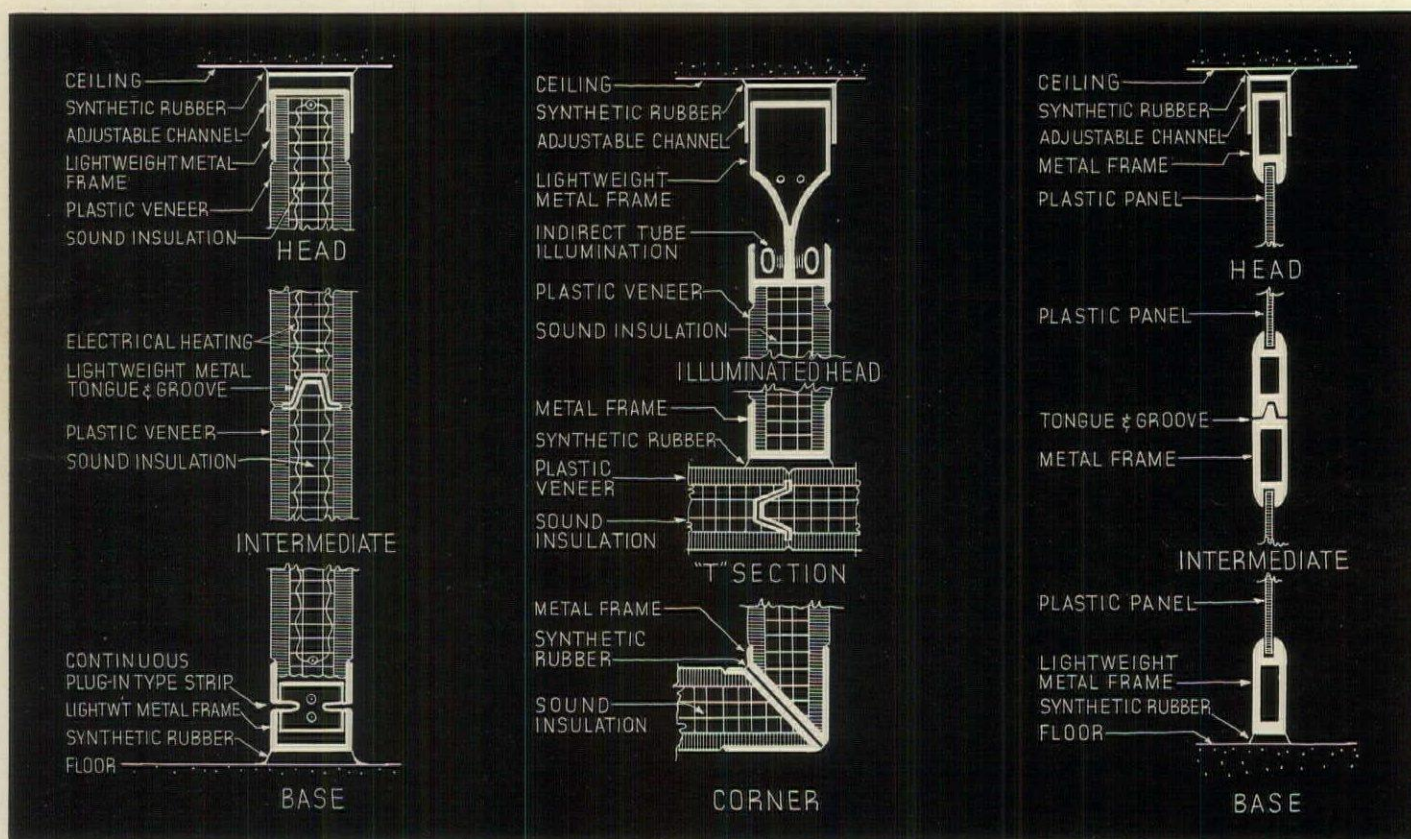
1. A combination base section containing a continuous plug-in strip for electrical convenience outlets.
2. Indirect high-intensity tube lighting in the head section, controlled from either side of the partition.
3. Internal resistance wiring for thermostatically-controlled radiant heating.
4. Interchangeable units for use as 'doors' where needed.
5. Integral sound insulation for privacy.
6. Acoustical surface treatments for variable control of room acoustics.
7. May be placed anywhere and at any angle.
8. Ease of handling assured by light weight and general design.
9. Units well adapted to mass production.
10. Attractive, 'permanent' appearance. Unit may match other wall materials or be made in various colored plastics or decorative veneers. Glazed and translucent panels interchangeable with opaque panels."

FRED J. MAC KIE, JR. AND

KARL F. KAMRATH



Fred J. MacKie, Jr., Architect, Houston, Texas, studied at the University of Texas and worked as a designer in the office of Graham, Anderson, Probst & White, Chicago. He was chief designer for the Architectural Decorating Co., Chicago, before forming the firm of Mackie and Kamrath in 1937. Karl Kamrath, Architect, also studied at the University of Texas. He worked as a designer in the office of Pereira & Pereira, Chicago, and for the Architectural Decorating Co., and was chief architect for the Marshall Field & Co. Interior Studios. The firm has won various prizes in small house competitions, designed a number of residences, been associated with Houston's slum clearance housing and the much publicized Fire Alarm Building.



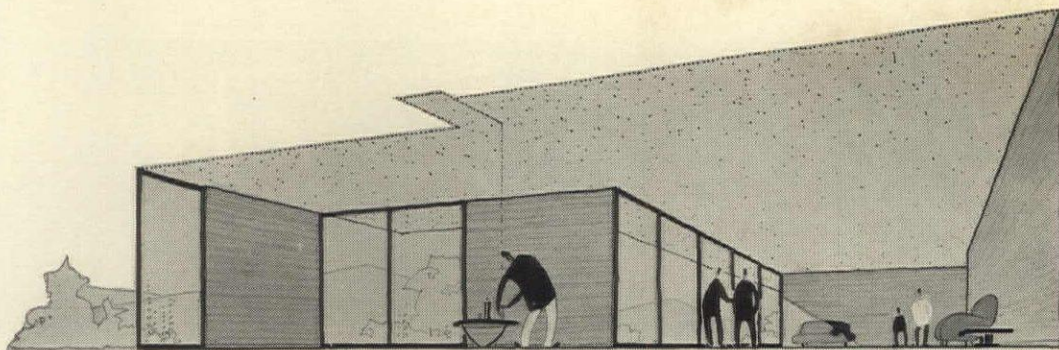
"The materials used in the construction of the type A units (above left) would be a lightweight metal frame sufficiently strong to hold the panel rigid, covered with a plastic veneer. This frame would be the basis upon which the main portion of the panel would be designed. Frame, inner core of sound insulation and plastic veneer would be put together under pressure, making a homogeneous unit. In order to hold the units in place and keep them from rattling or vibrating, each panel is surrounded with a synthetic rubber gasket which holds it slightly away from the permanent floor, walls and ceiling. This synthetic rubber would have the feature of adhering firmly to the permanent surfaces but could be removed when the pressure is released without leaving marks.

"The type B panel (above, right) is a simplified construction, con-

sisting only of a narrow lightweight metal frame, a plastic interior panel, and the synthetic rubber surround. Plastic panels could be opaque, translucent or transparent, in any color. Innumerable different types of material could be used in the construction of the units to give almost any desired effect. We have simply shown two different suggestions.

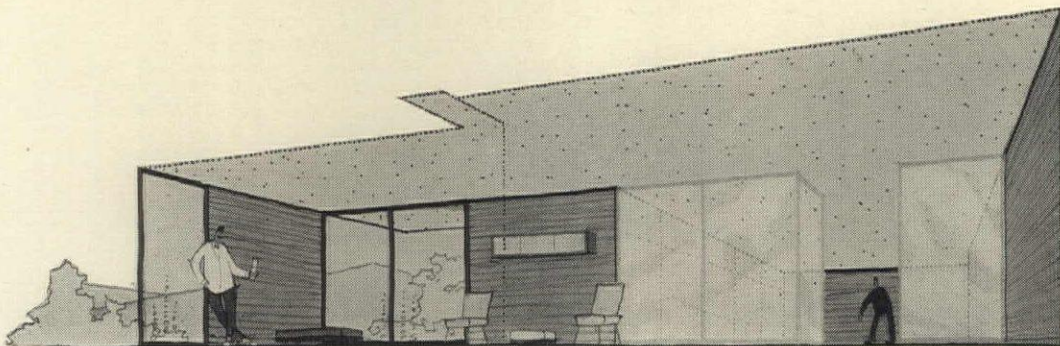
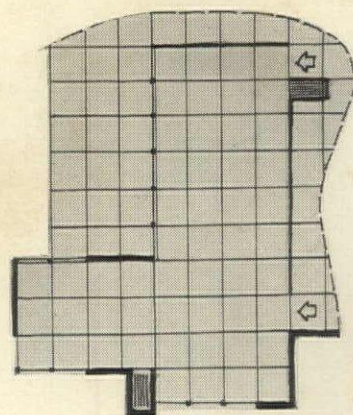
"To set up a partition consisting of a series of the units, an end panel adjoining a permanent wall would first be set in place. Flush pivot levers near the top corners of the panel would raise the adjustable metal channel along the top, forcing the synthetic rubber gasket against the ceiling and fixing the unit in place. The next unit would then be ready to set in a similar manner. In fitting the units together, the necessary electrical connections would automatically be made by simple insertion-type base connectors."



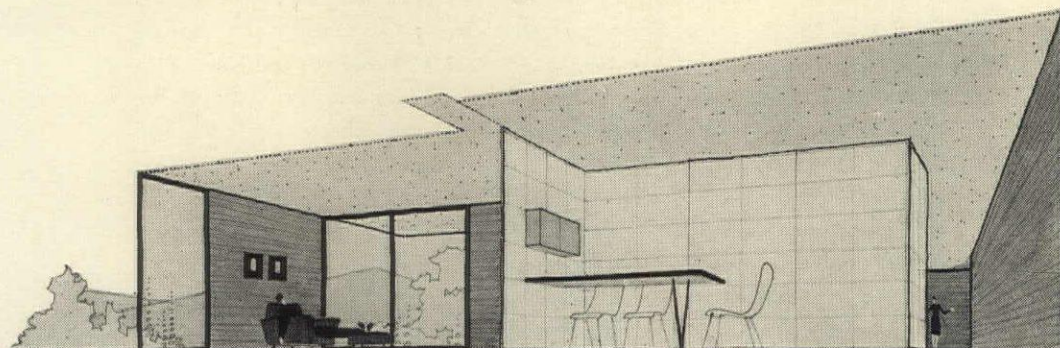
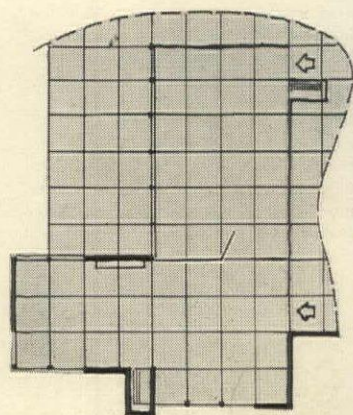


**"1. OPEN SPACE.** General plan of living area with adjoining terrace assumed as part of a typical small house. Plan, right, shows storage closets for partitions and access doors

from kitchen and bedroom (indicated by arrows). Terrace side has sliding glass or plastic walls for access to terrace.

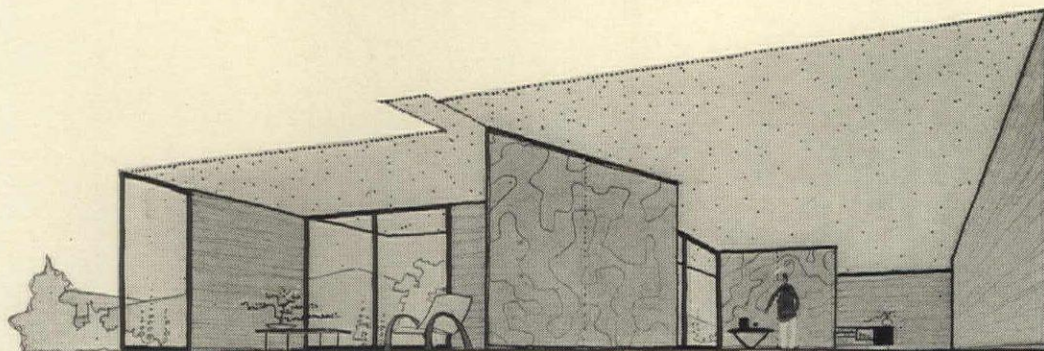
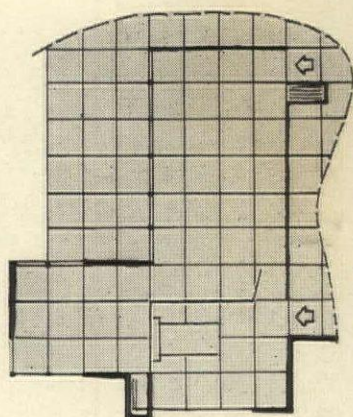


**"2. TWO SPACES.** Movable units made of translucent plastic divide the area into two approximately equal spaces. Note use of hinged unit as 'door.'

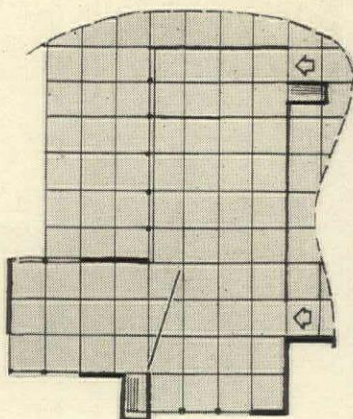


**"3. THREE SPACES.** Complete privacy for three spaces is suggested in this arrangement. Units may be different colors and

textures, and furniture could be attached as suggested, thus conserving space.

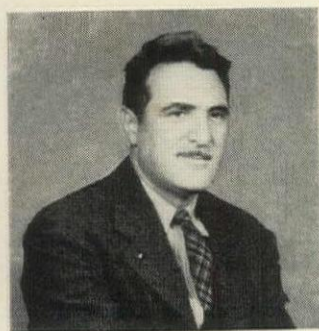


**"4. FOUR SPACES.** This arrangement provides several semiprivate areas and shows how an oblique wall may be used for interest as well as to conserve space."

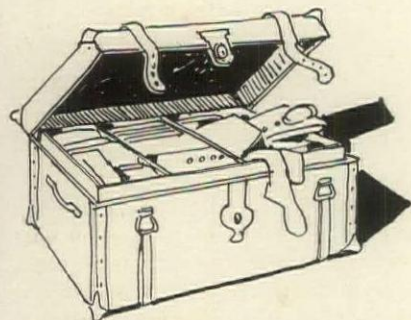
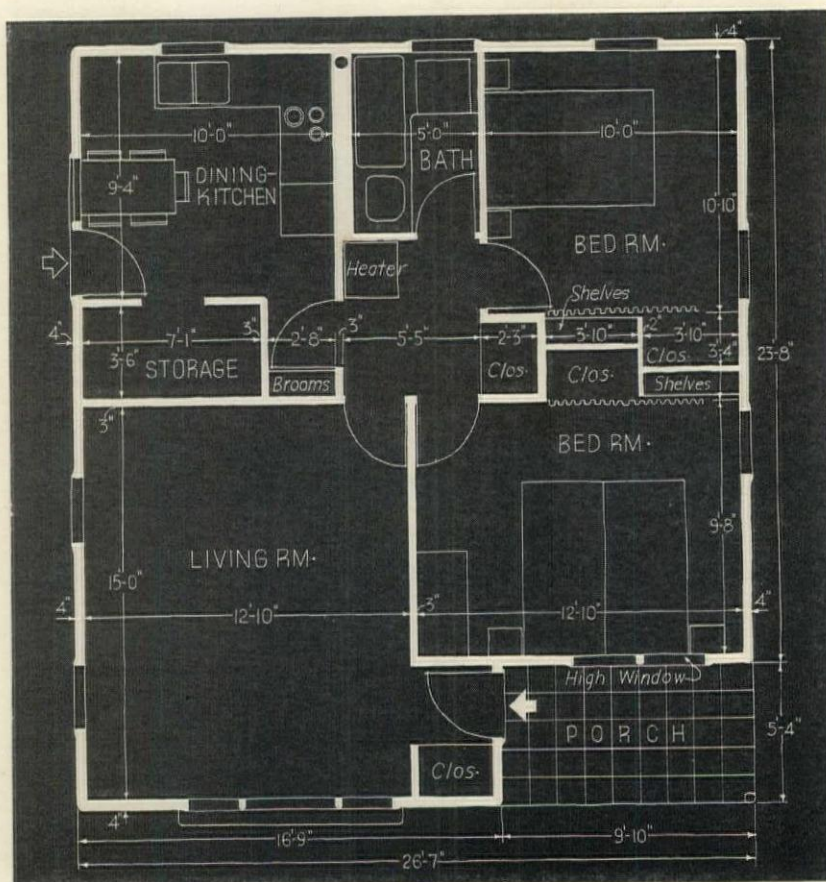




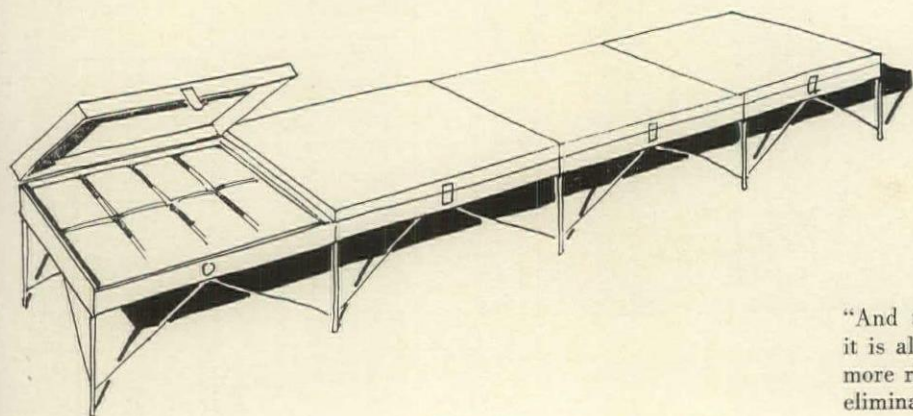
VICTOR CIVKIN



Born in Kiev, Russia, in 1898. Came to the U. S. in 1922. He has designed a great number and variety of buildings during his 19 years of practice, and he is at present licensed in four states. For the past ten years Mr. Civkin has been in charge of the Architectural Service Department of General Electric's Home Bureau. He has also been a consultant, for the past nine months, for Houses, Inc., on prefabricated housing.



"This is how the trunk is now made. We all know that the best part of a trunk is the first layer. If the trunk must be of a certain capacity and if everything should be on the first layer, it would have to be built as shown below.



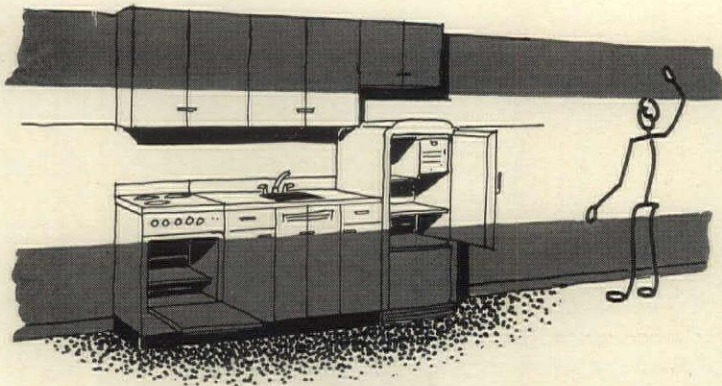
"You will probably have many designs of round houses, balloon houses, and houses which can fly or dance—however, I believe that this might come in 19xx but not in 194x. This plan, therefore, is just a very compact layout with more storage facilities than the average small house of today. I believe that the major difference between previously built small houses and the house of 194x is that the latter will be supplied complete with accessories and equipment. The kitchen area is comparatively large. We found, as a result of many surveys, that the housewife does many things in the kitchen besides cooking, and that a great many families want eating space in the kitchen.

"This house, though it looks like any other house of this class, was designed for either conventional or prefabricated construction.

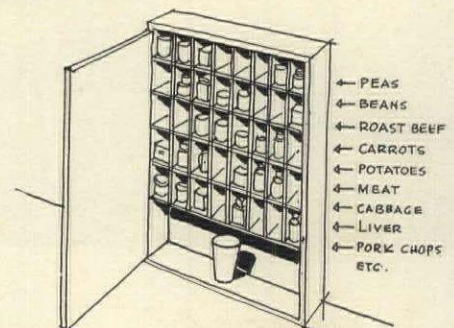
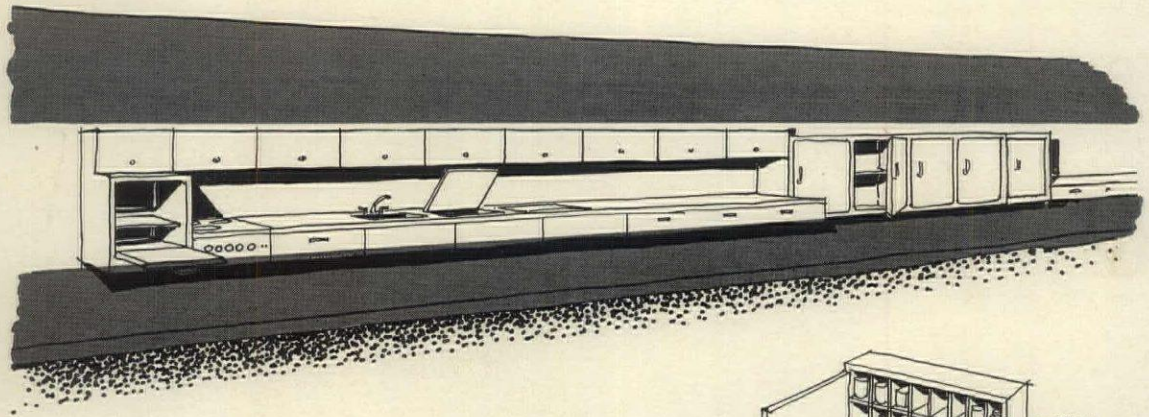
"I would like to put emphasis on the kitchen because for the last ten years I have specialized in this field. To emphasize the futility of many of the ideas for 'no stooping,' 'no reaching,' 'no bending,' etc., kitchens, I have made a sketch of a trunk, shown at the left.

"And to make the thing more comfortable, now that it is all in one layer, and to make it at the same time more ridiculous, we put the one-layer trunk on legs to eliminate all bending. The sketch speaks for itself."

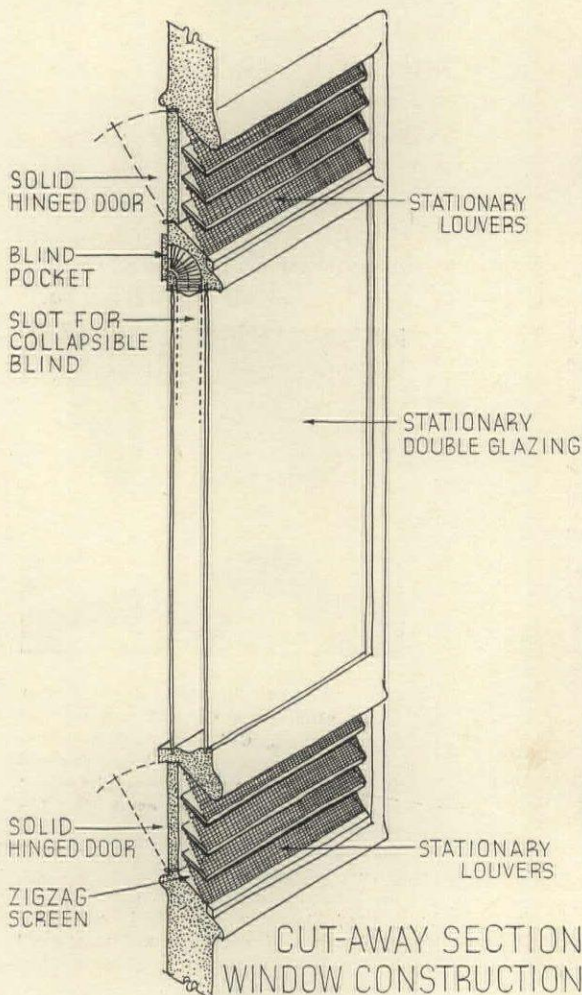




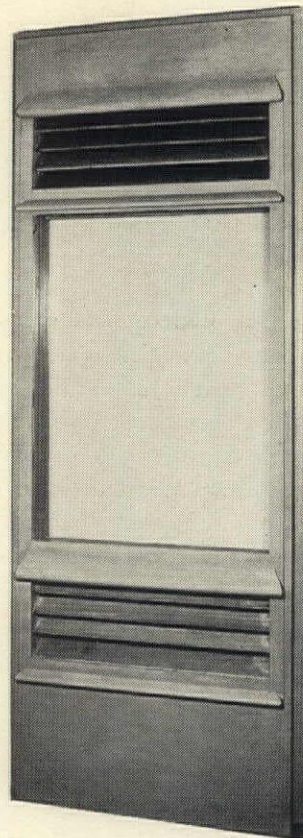
"Comparing the kitchen with the trunk, we took as an example a small one-wall kitchen, composed of existing equipment. The white band indicates the desirable space for the 'no bending' idea. If all the facilities of the kitchen were placed within this band, the kitchen would become 8 to 10 times longer, taking on an extremely impractical shape. Below this sketch is another, illustrating a design for the 'xxxx' kitchen, nothing more than a cabinet of flavored vitamin pills and a glass. This will obviously eliminate any need for a kitchen with dishwashing, cooking, cleaning, etc. In the meantime, in 194x, I don't think that a little stooping, or a little walking, or a little bending will hurt the average housewife—on the contrary I suspect that it will help her to keep a better figure.



THE KITCHEN OF XXXX



CUT-AWAY SECTION WINDOW CONSTRUCTION



"The proposed window is definitely divided into two parts, one for vision only and one for ventilation only. These could be separated entirely, as one function has no necessary connection with the other.

"The portion for view and light has fixed double glazing, which eliminates almost all leakage. Since it is still impossible to eliminate condensation in double windows, provision has been made for cleaning the panes inside through the collapsible blind slot. A special tool on the order of a windshield wiper could be used on the rare occasions when cleaning was necessary.

"The ventilating element consists of a solid hinged door on the inside, with stationary louvers on the outside, together with a zigzag screen. The screen was given this form to increase its capacity to pass air. In certain locations filters could be substituted for the screen and there is also the possibility of moisture being introduced into these filters to provide extra humidity. The drawing was made for a plastic, molded or cast in one piece. However, the same idea could be used for wood or metal."





### NEW ARCHITECTURAL ELEMENTS

"Manufacturers are now for the first time able to produce with economy and a variety of materials, fabricated parts of large size. Consequently, the trend of building construction is in this direction. In the new house, entire sections of finished walls and roofs supersede the conventional small, unfinished building products. The new elements will improve house construction, shorten the time of erection, will be more economical to build and maintain, and will actually enrich our experiences in living. Rather than apply the new systems of construction to preconceived house designs as so often done previously, new compositions will be created.

### STANDARDIZATION AND MASS PRODUCTION

"Quality and economy can be achieved only if standard units are manufactured in quantity. The limited success of prewar house manufacturers has been due mostly to the excessive variety of types produced. By trying to satisfy the eclectic demands of the public they have defeated the virtues of their enterprise. On the other hand, popular demand for a product is based on its familiarity to the public. New conveniences are sold easily enough, but not new appearances. This brings up another problem."

### JOHN PORTER CLARK AND ALBERT FREY



Born in Iowa in 1905, John Porter Clark studied at Cornell and worked in offices in California. His work, largely residential, has been devoted to an attempt at greater simplification of design and building as a step toward the solution of modern living problems.

Albert Frey was born in Zurich, Switzerland, in 1903. He came to the United States in 1903. He is author of "In Search of a Living Architecture." He has been in partnership with John Porter Clark since 1939.

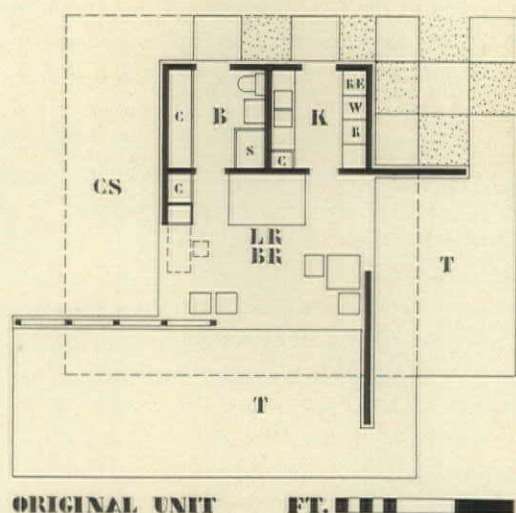


## A PROBLEM OF ESTHETICS

"The house of 194x should show an improvement not only in convenience but also must be more attractive in appearance than those built before the war. This presents a challenge to the architectural designer.

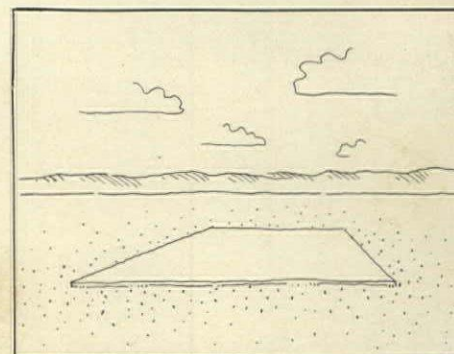
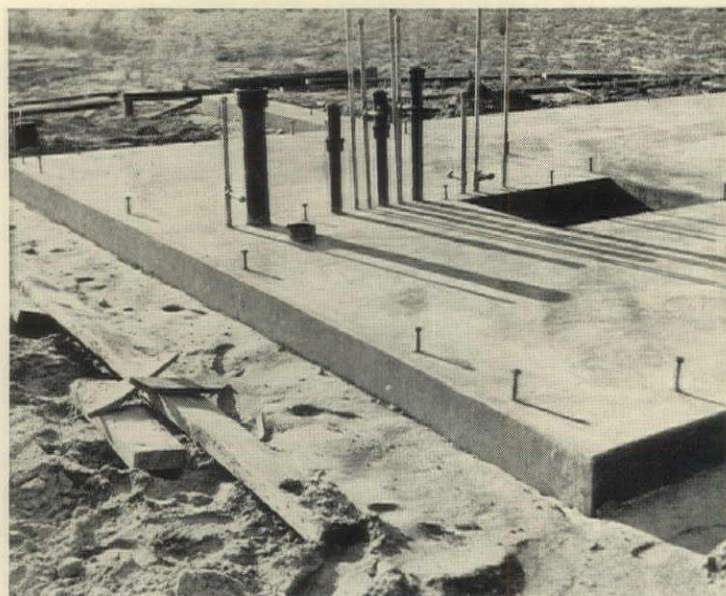
## DESIGN

"It will be necessary to establish new standard building units, as few in number as possible. The present 4' x 8' panel size is convenient and well adapted to available materials. The remainder of the job is up to the designer. There are the problems of space relationships, views, exposures and lighting which the requirements of the client and the interpretations of the designer will shape into varied solutions. The new compositions will necessarily be rectangular, but will present a desirable contrast to the irregular forms of nature. Though the basic dimensions will be standardized, there will be a choice of surfaces, textures, color and composition. The proposed system of construction will permit the smallest scheme to be a complete architectural composition, with additions becoming an integral part of the building. With this scheme, more people will be able to build sooner, and at each stage of family development they will find their homes related directly to their personal lives."

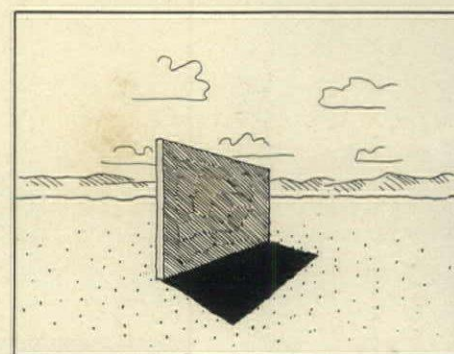


### Key

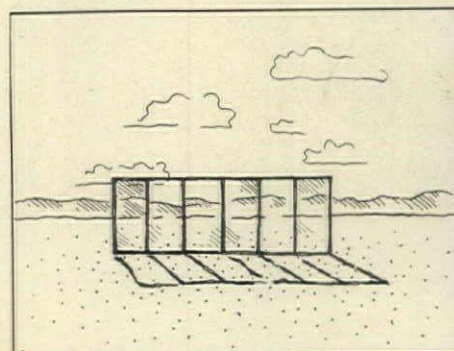
- C** Cabinets
- CS** Car shelter
- R** Range
- RE** Refrigerator
- S** Shower
- T** Terrace
- W** Water heater



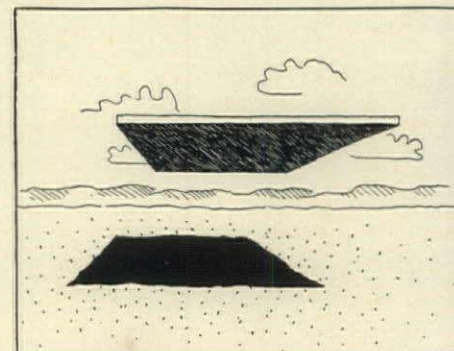
1. FLOOR SLAB



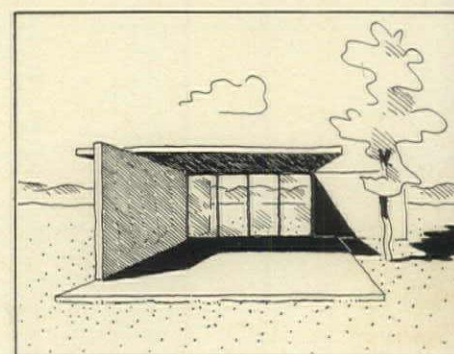
2. WALL UNIT



3. GLASS UNITS

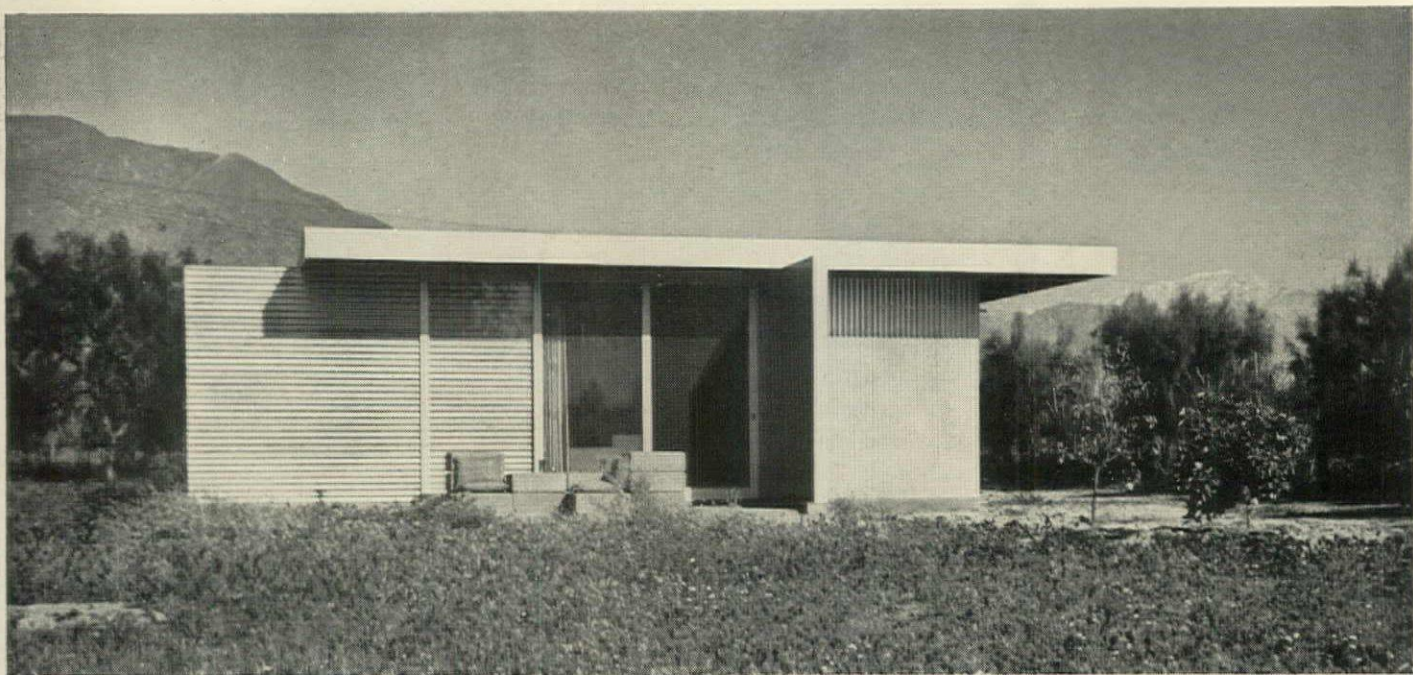


4. ROOF UNIT



5. COMPOSITION



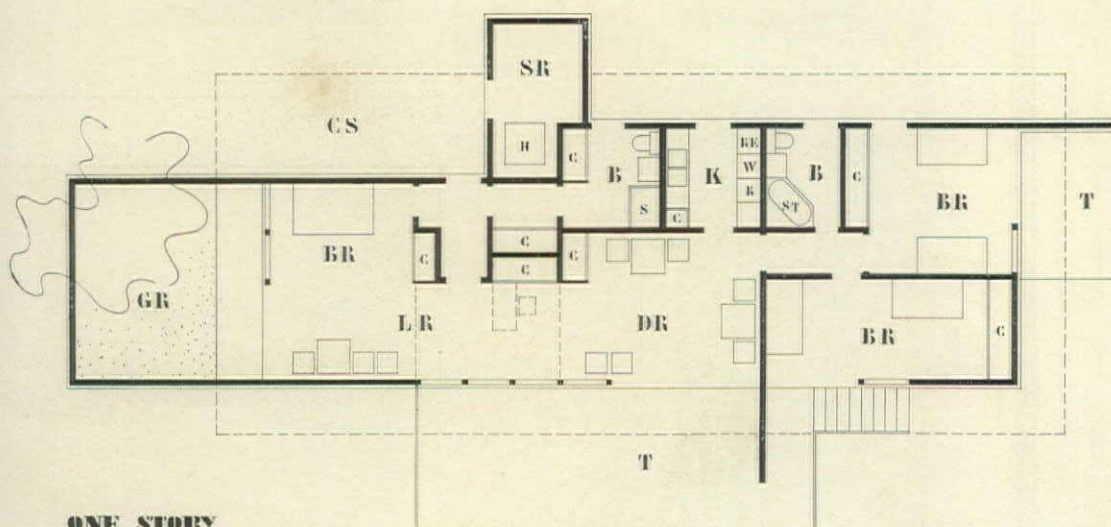


ONE-STORY HOUSE



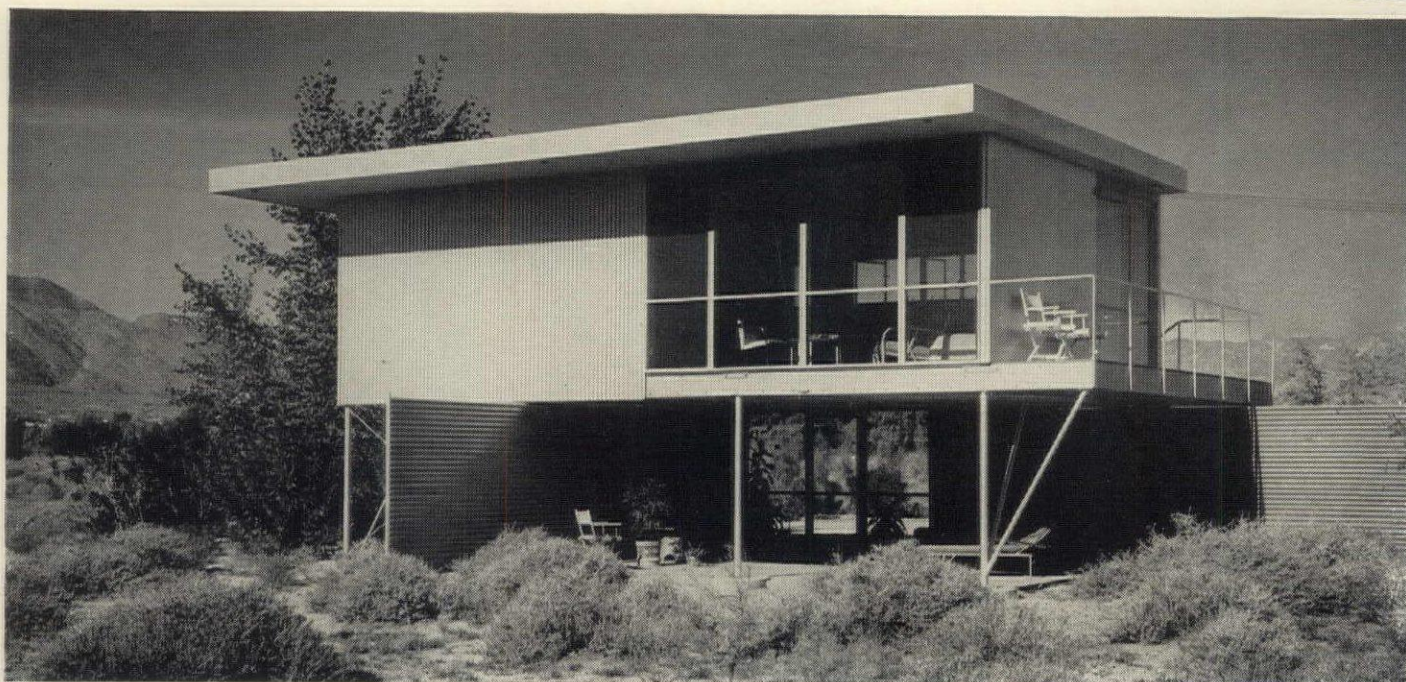
### FURNITURE AND EQUIPMENT

"The shell of the house being made of standardized parts, the industrial designer and equipment manufacturer will then be able to devote more effort to fewer types of accessories. Inasmuch as the area of such a house will be small and used for a variety of purposes, its furniture should be easy to move or convert. It is proposed that relatively few new utilities and gadgets shall be added to the already existing ones in general use but that community facilities be used more intensively, as centralized services have greater efficiency and economy. The resulting low investment in the complete house will assure the amount of freedom necessary for a broader existence."

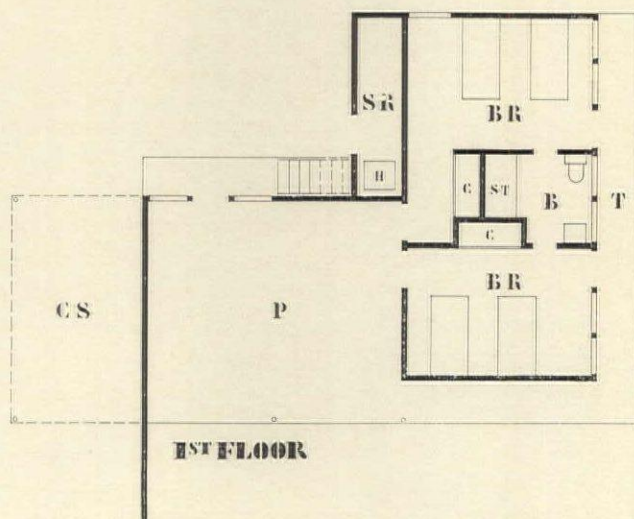


ONE STORY

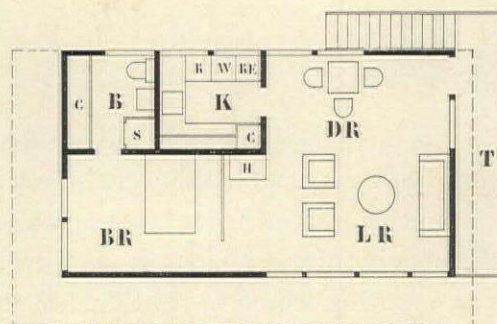




TWO-STORY HOUSE



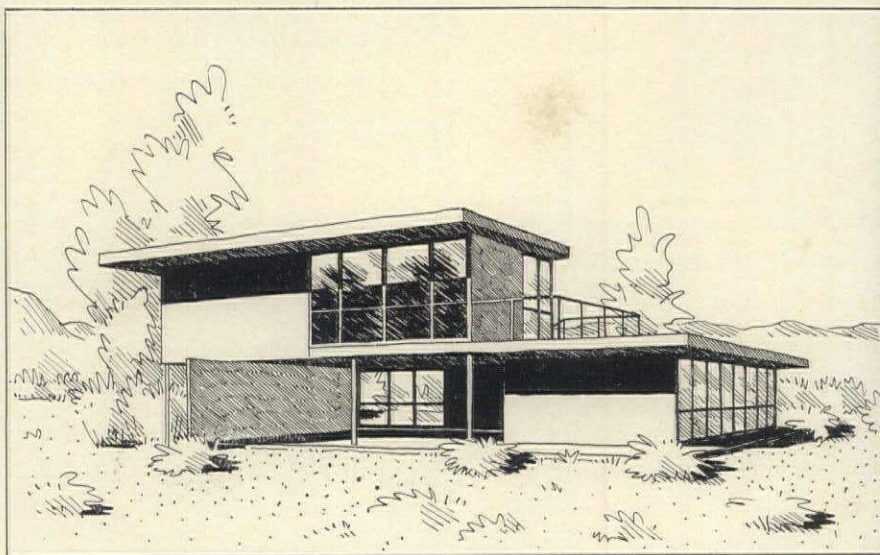
1ST FLOOR



2ND FLOOR

## EXPANDED TWO-STORY HOUSE

The two houses on these pages are presented as full-scale realizations of some of the ideas which have been expressed above. They are free from the restrictions of everyday practice since the architects were also the clients. The one-story house is a minimum dwelling unit with wall facings of corrugated steel and asbestos cement board. Utility pipes and anchor bolts were set in place before the floor slab was poured. In quantity production such a unit would compare in cost with an inexpensive car. The two-story house is shown above in the first stage of construction, with all living rooms on the second floor; in the sketch at the right, two downstairs bedrooms and a bath have been added.





194x is not so far off. Thinking, moreover, of the present millions of American homes without even such necessary refinements as plumbing, we have tried here to keep somewhat within the possibilities of the near future. For this reason we have avoided such Jules Verne miracles of prediction as self-operated permanent wave machines in every bedroom; violet-ray and infra-red methods of keeping the sleeper both antiseptic and warm; bedside mail chutes in place of the postman at the door; automatic gadgets for the immediate disposal of nightmares; sheep comptometers.

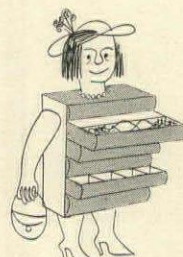
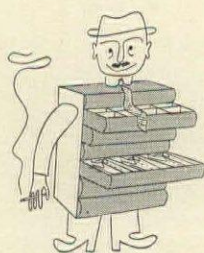
Postwar manufacturers in search of peacetime industries should consider the bedroom. In our span of things to come there will still be more bedrooms than bathrooms or kitchens. More time is spent in the bedroom than in any other room.

Completely room-transforming is our genius for gadgetry and planning—as witness our bathrooms and kitchens. It is high time, therefore, that American ingenuity be applied to our inefficient, unsanitary and inadequate bedrooms.

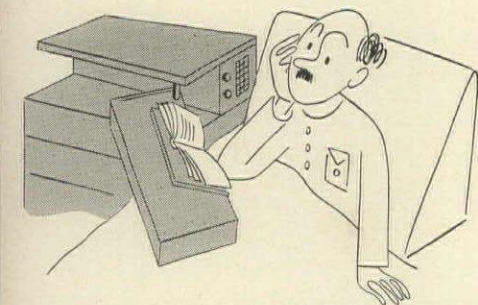
The bedroom cannot be transformed overnight. It is to be expected that we will begin by improving existing furnishings, eventually evolving a more radical approach and a more integrated whole.

## TO BEGIN WITH—

**DRAWERS**, the main item of cost in any present-day bedroom suite, may, after the war, be made of bent plywood and sliced from large moldings like bread, reducing drawer parts from 5 to 2, thus causing a saving which should enable the manufacturer to give us sufficient drawers, with fitted interiors of proper dimensions to store and file modern clothes (and not hoop skirts) so that a

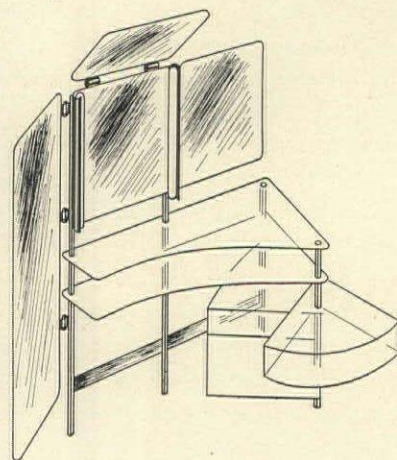


MALE CHEST and a FEMALE CHEST evolves



No piece of present-day furniture is more inadequate than the old fashioned **NIGHT TABLE**—of chamber-pot origin. This piece should and could contain provision for light, telephone, radio, books, magazines, stationery, as well as a pull-out tray to be used for meals, reading, writing and make-up.

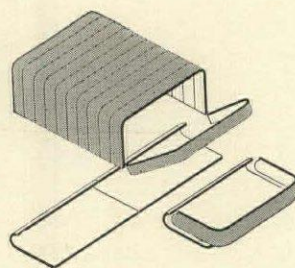
Most necessary to the feminine female is equipment for glamour. Consider the time given to personal appearance. Consider our fantastic cosmetic industries. A **DRESSING TABLE** might therefore become a compact marvel of efficient planning, containing multiple mirrors adjustable to many angles; light adjustable to different degrees of intensity; washable, stainproof cosmetic drawers; safe space for jewelry; built-in provision for the supply and disposal of cleansing tissue. Plastic developments and increased metal production should facilitate all this.



## RUSSEL AND MARY WRIGHT



Have long been one of the most successful teams in industrial design. Mr. Wright trained to be a painter and apprenticed as a theatrical designer. His workshop developed into a small factory producing informal serving accessories for national distribution. Soon design work was being done for manufacturers in all fields from housewares to furniture, radios and showrooms.



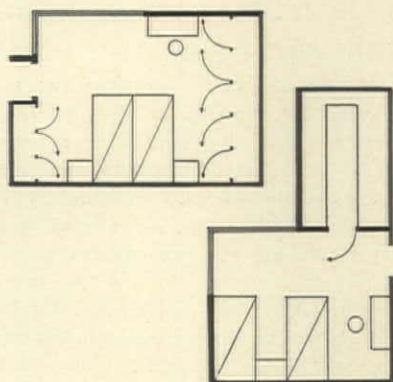
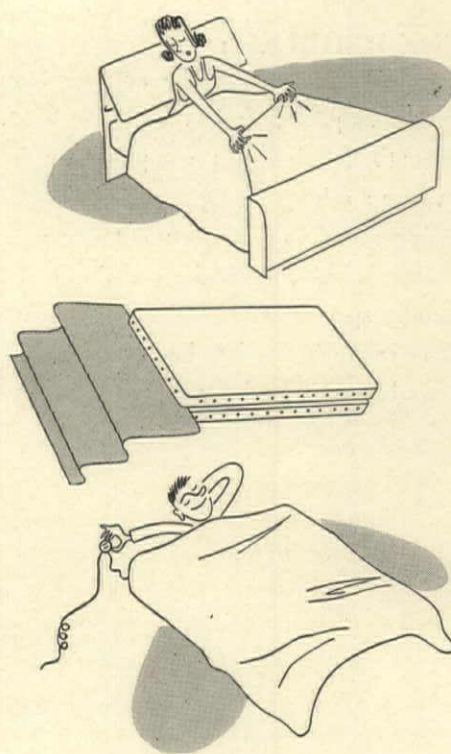


Think of the present-day bed and its impedimenta of BED CLOTHES. Why shouldn't we have adjustable, padded headboards; footboards containing blankets on roller springs which can be pulled up or pushed off while the occupant lies sleepy on the mattress?



A greater abundance of rubber, both substitute and real, may enable us to develop mattresses and beds so constructed that the housewife can turn over the mattress by a touch of her little finger.

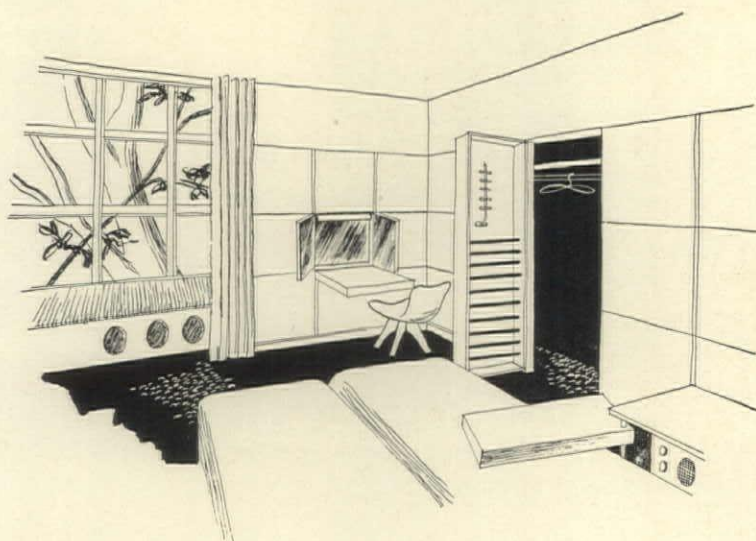
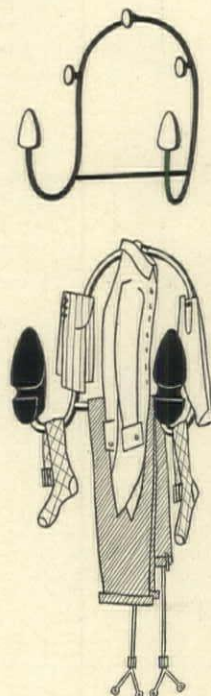
Perhaps increased experience with synthetic fibers will produce simplification of the labor-wasting system of *bedmaking*. Imagine a buttonless mattress to which is attached a permanent blanket containing a highly efficient insulating material—both mattress and blanket covered with a new scrubbable fabric leaving only the sheets and pillow cases to be washed. Improved ELECTRIC BLANKETS equipped with thermostatic adjustment to suit the fussiest sleeper may well become household staples.



As with the kitchen, once interest in the bedroom has started there will be declared another holiday for gadget inventors. Think of our only too common domestic dermatitis—*Undressing Litter*—and imagine what a gadget like this could do on the back of a closet door.

A smart prefabricated house manufacturer will get the run on his competitors by not only outfitting his kitchen and bathroom but also by offering spectacularly well-planned bedroom CLOSETS—properly ventilated and lit and with space carefully planned for entire wardrobes.

Were husband and wife to share such a closet, 77 sq. ft. would be adequate. Individually, the man's would take 12 sq. ft. and the woman's 27 sq. ft., due to the fact that backs of hinged doors can be pressed into service. However, when considering total space of closet and room, there is little advantage gained in the use of individual closets since extra doors require free wall space.



Yet it is possible that, like the camel and the Arab, the individual closet will some day take possession of the bedroom. Thus the bedroom would become a kind of master closet—with walls containing highly specialized units to provide for certain furnishings and all wardrobe storage. If this closet scheme finds favor it would be such a basic departure that eventually the entire bedroom would be built in and sold as a unit (like present-day bathrooms and kitchens)—the main materials being plywood, glass or plastic.

Maybe future homes will boast not only a Universal Electric Kitchen and G.M. Bathroom, but also a handsome Built-in Boeing Bedroom.

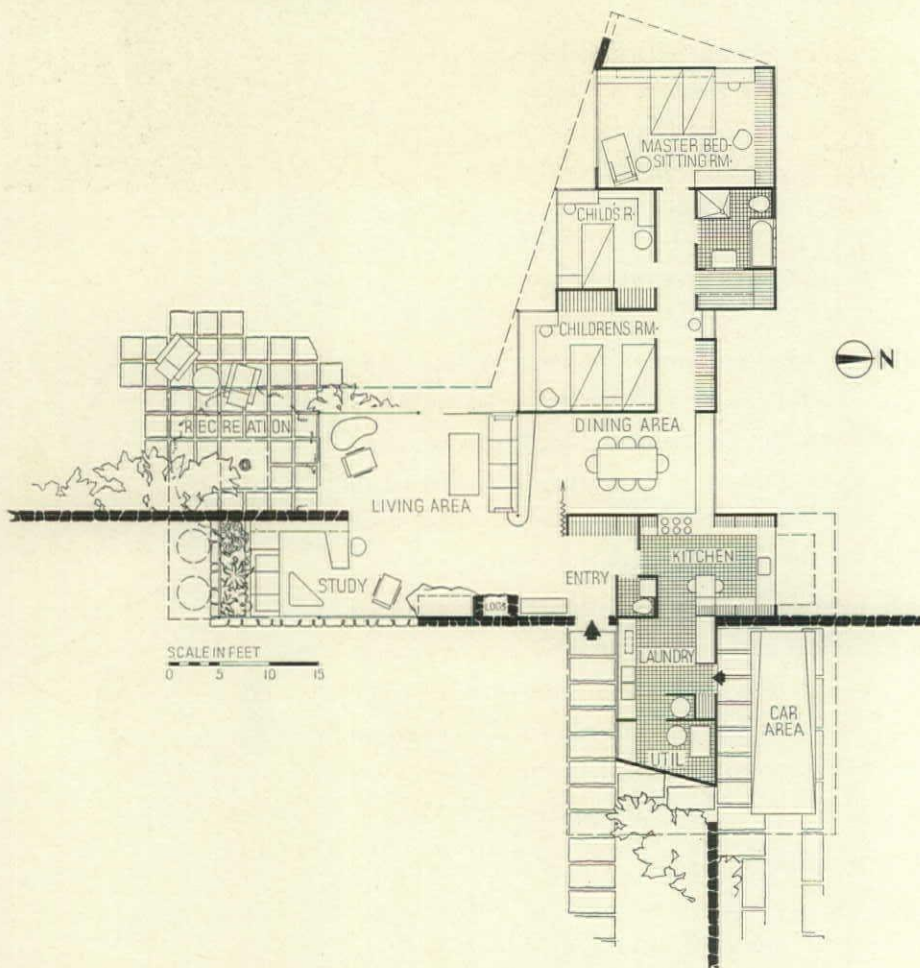


**THE PROBLEM:**

"A postwar house for the average family with two or three children, to meet conditions prevailing in the Middle West.

"Client's requirements comprise the following: an entry with coat closet and lavatory; a large living area serving three separate functions; separation for the dining room on occasion; outdoor recreation space; a separate wing with two children's bedrooms and a bed-sitting room. The work area to comprise a kitchen, laundry space and a utility room with work bench.

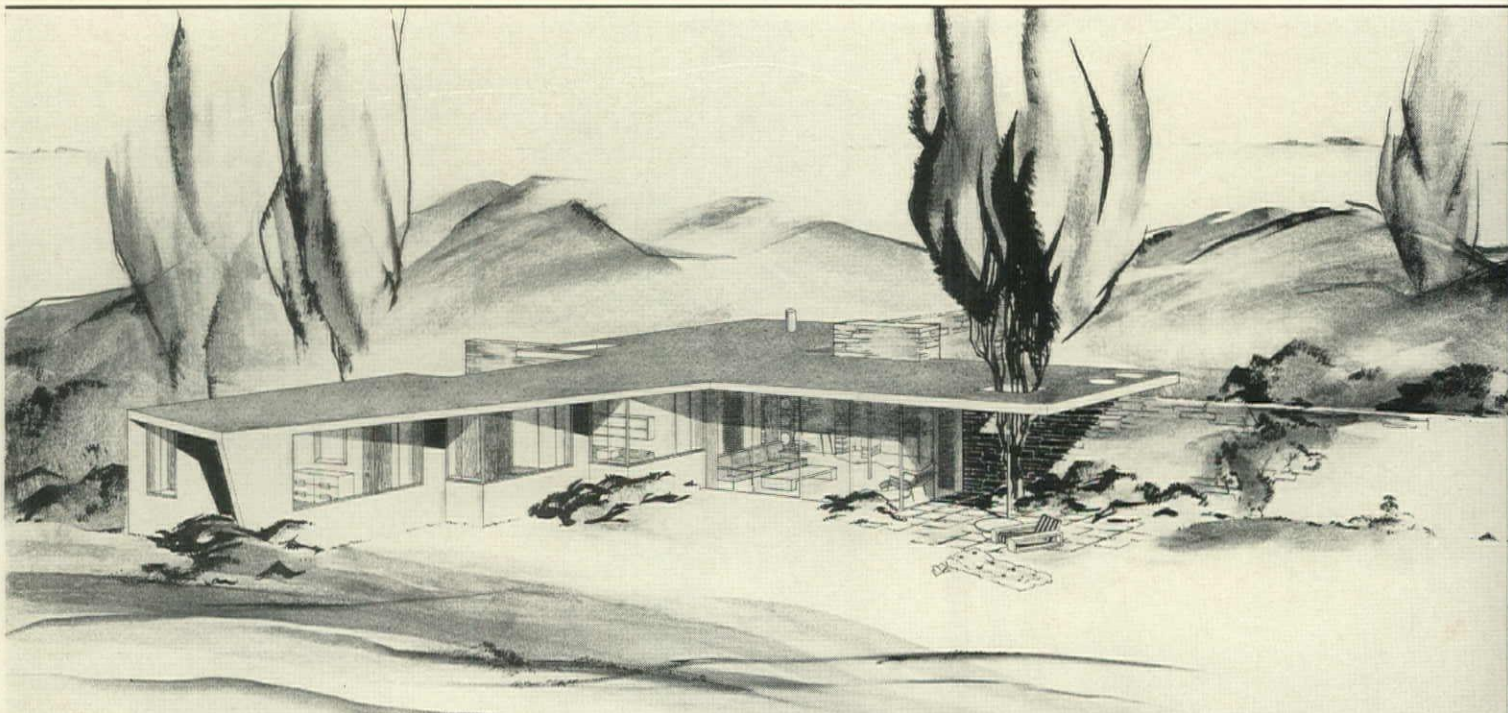
"The entire house has been taken as a general problem, the kitchen and work space being selected for special consideration."

**SAMUEL MARX**

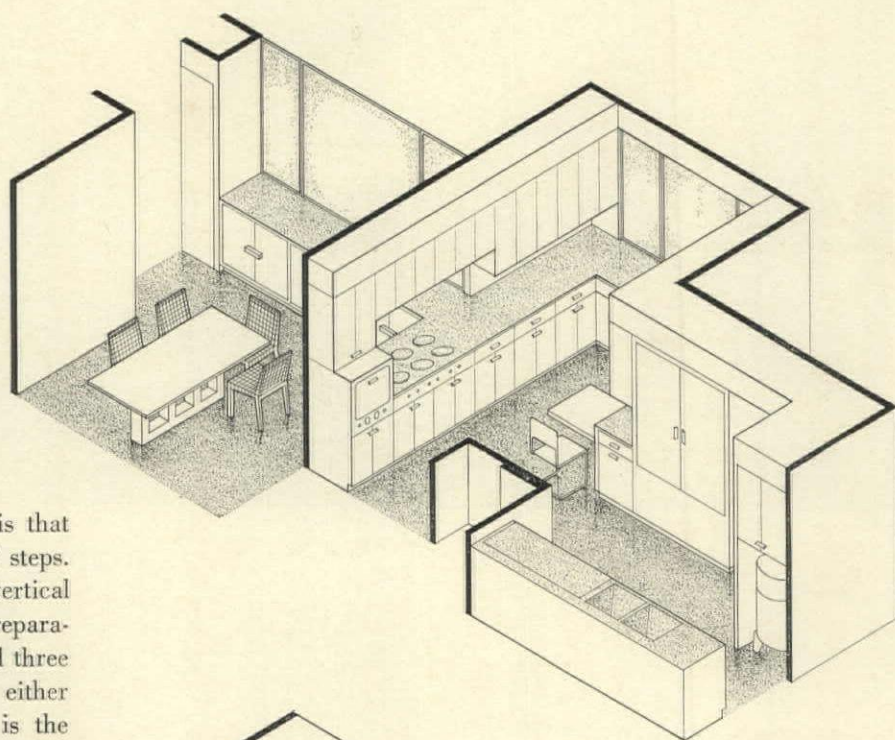
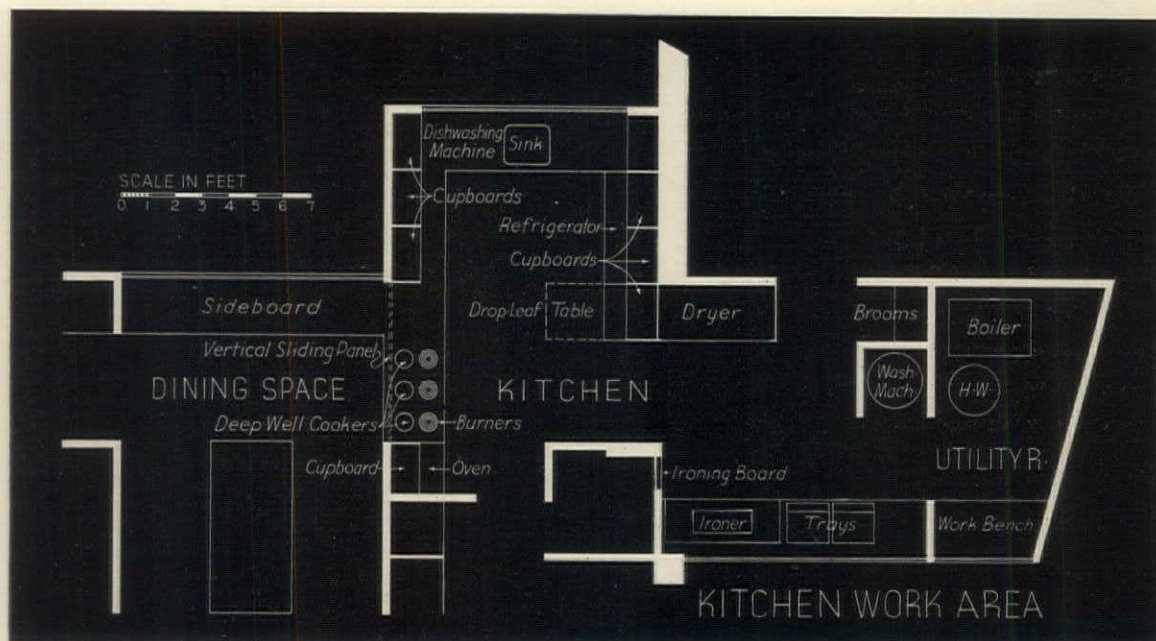
Born in Mississippi in 1895, he graduated from M.I.T. and spent three years at the Beaux Arts in Paris. His practice, centered in Chicago, has been largely residential with some large commercial projects. NOEL FLINT and CHARLES SCHONNE, collaborators on this design, have been associated with Mr. Marx for over fifteen years.

**A SOLUTION:**

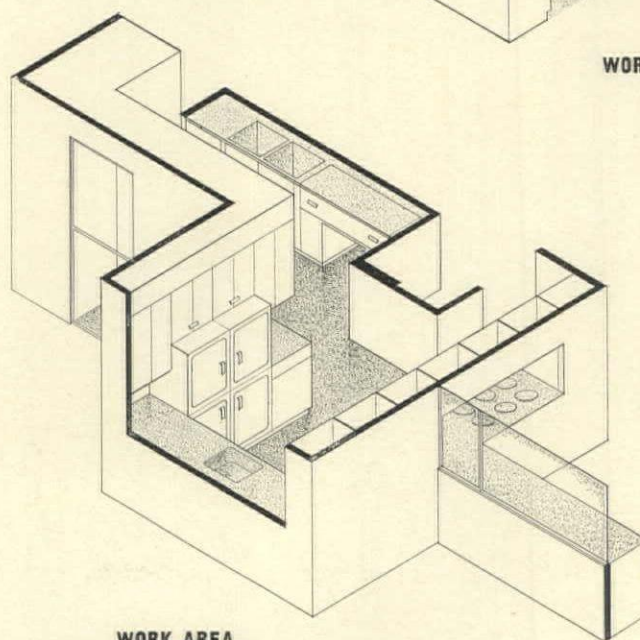
"Orientation has been considered as the most important element, sunlight and air in connection with the particular requirements of the room determining the plan. The staggered bedrooms, for instance, were developed on this basis. The living area has three exposures, while rooms in the work section have windows on the north and south. A column and beam construction is used, with extruded aluminum and rolled steel as the materials. Wall panels are non-bearing: exterior panels have a plastic outside face with plywood inside. Interior panels are entirely of plywood. All panels have an extruded interlocking aluminum edging, with a section universal for all panels and columns."







WORK AREA



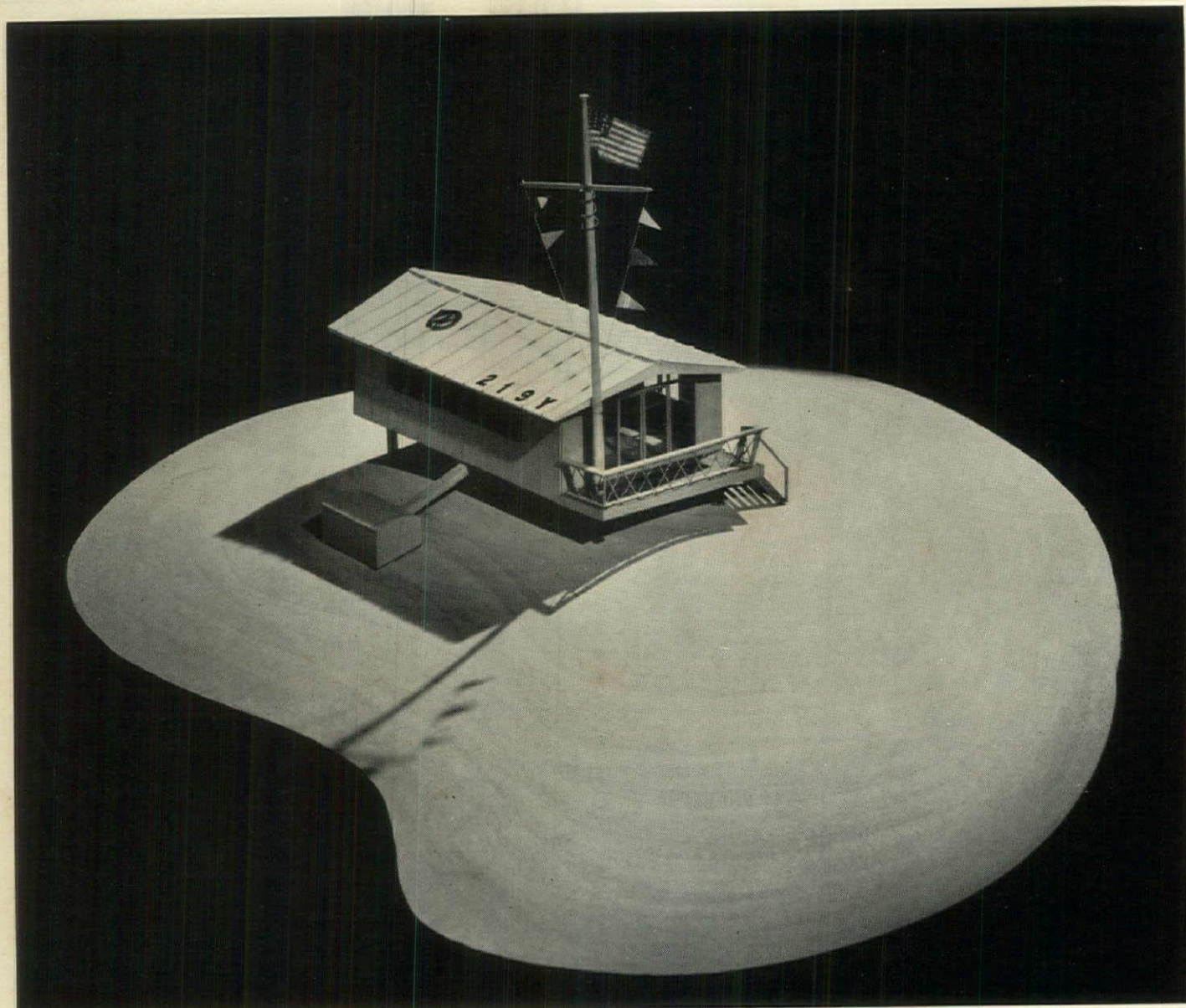
WORK AREA

"The theory back of the kitchen planning is that the meal can be served with a minimum of steps. The stove is accessible from both sides, and a vertical sliding panel closes off the kitchen during preparation of food. The stove has three burners and three deep well cookers, the latter being used for either cooking or warm food storage. Adjacent is the oven at proper height. An exhaust fan in one of the cabinets carries off cooking odors.

"The refrigerator consists of separate units of standard width and height. Their number is determined by family requirements for both space and segregation of foods. The kitchen and laundry are combined to get natural light from two sides. By using a combination of built-in units and space for the washing machine, an appearance of continuity between the laundry and kitchen is obtained.

"Equipment is electrical with exception of the boiler. Cabinets and cupboards are metal with baked enamel finish, counter tops are linoleum with white metal edgings, hinges are concealed. There is continuous strip lighting under all cupboards over counters. Ceiling lights to be recessed. Receptacles for appliances to be provided above counters at 24-inch centers."



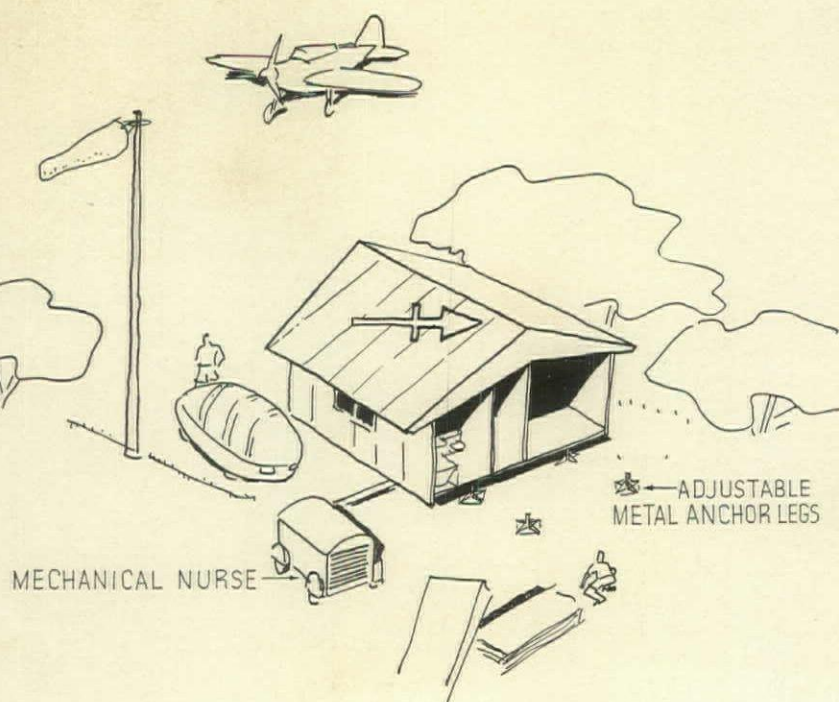


Model by Virginia Moran

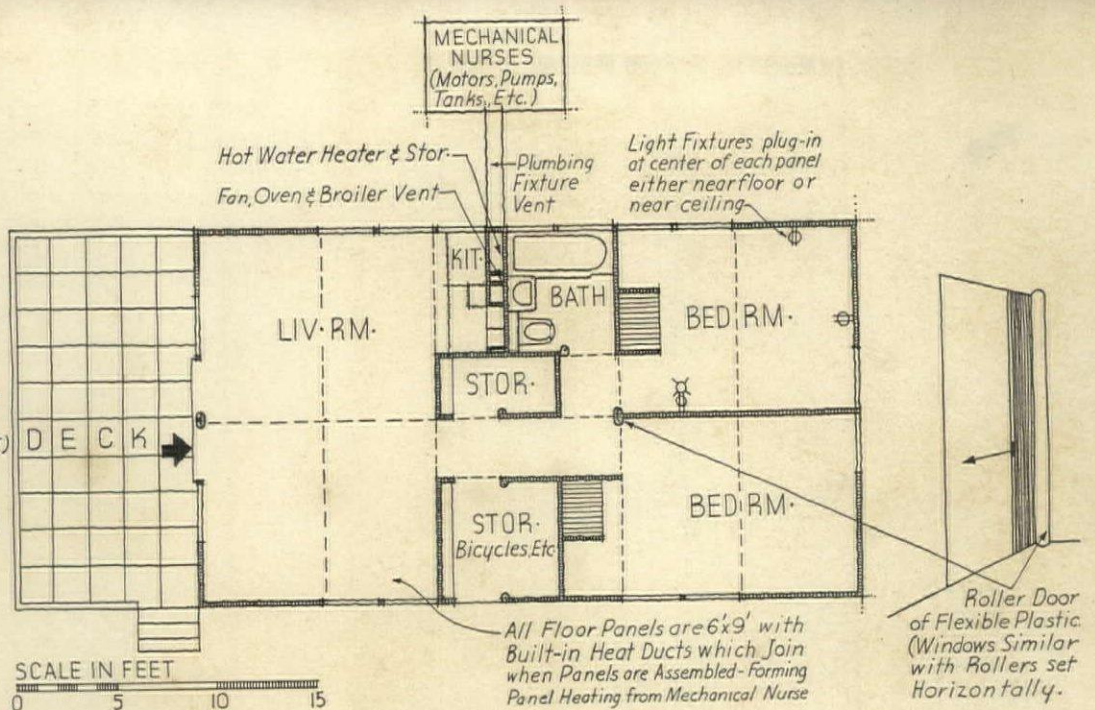
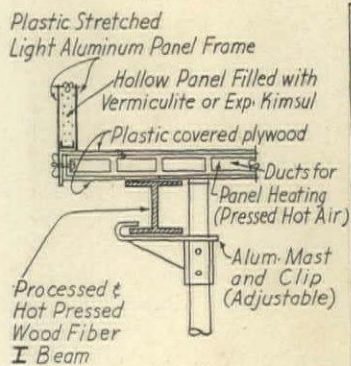
## GARDNER A. DAILEY AND JOSEPH ESHERICK, JR.



Gardner Dailey (right), Architect, San Francisco, Calif. was born in St. Paul, Minn. in 1895. His architectural training was interrupted by World War I, in which he served as an aviator. After several years of travel, he opened his office in 1926, specializing in residential work. He designed the Brazilian Pavilion at the San Francisco International Exposition and has invented a stressed-skin "folding roof." Joseph Esherick, Jr. (left), Designer, was born in Philadelphia in 1914. He studied architecture at the University of Pennsylvania and has traveled extensively in Europe. Shortly before coming to California he worked in the office of George Howe in Philadelphia. Upon arriving in San Francisco he first worked for Walter T. Steilberg, Architect-Engineer, and afterwards joined the office of Gardner Dailey.







"We are a dynamic, moving people. We are a traveling people, and avoid 'owning a home' because we don't want to obligate ourselves or be 'tied down.' At the end of the war, hundreds of thousands of Americans will be all over the world, and a great many will remain there—partly to police the world, partly to reconstruct it and partly because foreign wars produce wanderlust. Our communications will be worldwide, and our people abroad will want to be housed in the American Way. "The house we offer, therefore, has been designed for this moving population. It can be flown any place, put up by unskilled labor in a matter of hours, and it will suit any climate and condition. It will be as American as the hot dog and the jeep, and it should be recognizable anywhere.

"A further advantage of a light, inexpensive and flexible house is its adaptability to the postwar housing of the homeless abroad. It can be shipped easily and set up progressively to afford the most shelter for the least expense. The first year the living room, kitchen and bath, the next year the bedroom, and so on.

"It is to be hoped that the new materials and new techniques forced upon us by the war will help us to learn a new art of building that will expiate the errors of the past. We outline below some of the principal characteristics which should be considered in designing the house of 194x:

#### Prefabrication.

"Handicapped as it is by lack of advanced design, research engineering and materials, our struggling prefabrication industry has demonstrated beyond any argument the advantages of shop fabrication. While present methods involve little more than moving field work indoors, the prefabricators have pointed the way to mass-produced shelter and the day when the consumer will benefit just as he benefited from mass-production when automobiles ceased being made by hand.

#### Lightweight.

"Weight will be one of the determining factors in the design of our house of the future. Not necessarily on account of expense, but because weight means materials, man-hours and effort wasted. The sentimental idea that a house should, fortification-like, 'grow out of the ground' is hardly a philosophy for the age of aluminum, plywood and plastics.

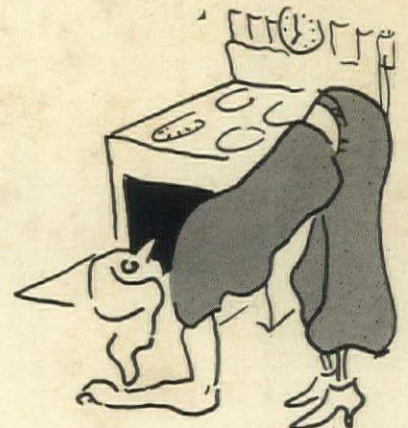
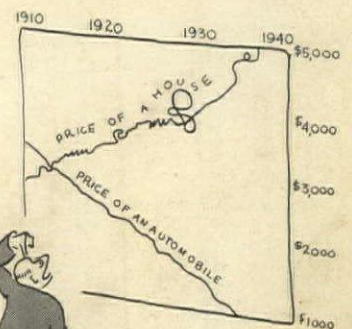
#### Flexibility.

"Occupants of the house of 194x will not be asked to live in anything monotonous or dull. They will have a wide choice of

arrangements to suit their needs, tastes and environment. Should space requirements change after the years they will not be forced to move because the house is too small or too large. They can simply add to or reduce the number of segments as required. Demountability will also afford the opportunity to move the house as often as necessary. Being light, it can be carried on a small truck.

#### Convenience.

"The house will contain everything that the ingenuity of man has devised to eliminate housework. Where such work is necessary it will be made as painless as possible. False streamlining must be eliminated. Our industrial designers have 'streamlined' everything from ink bottles to kitchen stoves. Whether an ink bottle looks like a projectile is unimportant, but when they put the oven on the floor to streamline the range it was a case of encasing a functional apparatus within a false form. The kitchen refrigerator is another splendid example of false packaging. Our ideas of what more functional equipment should be like are shown on the next page.

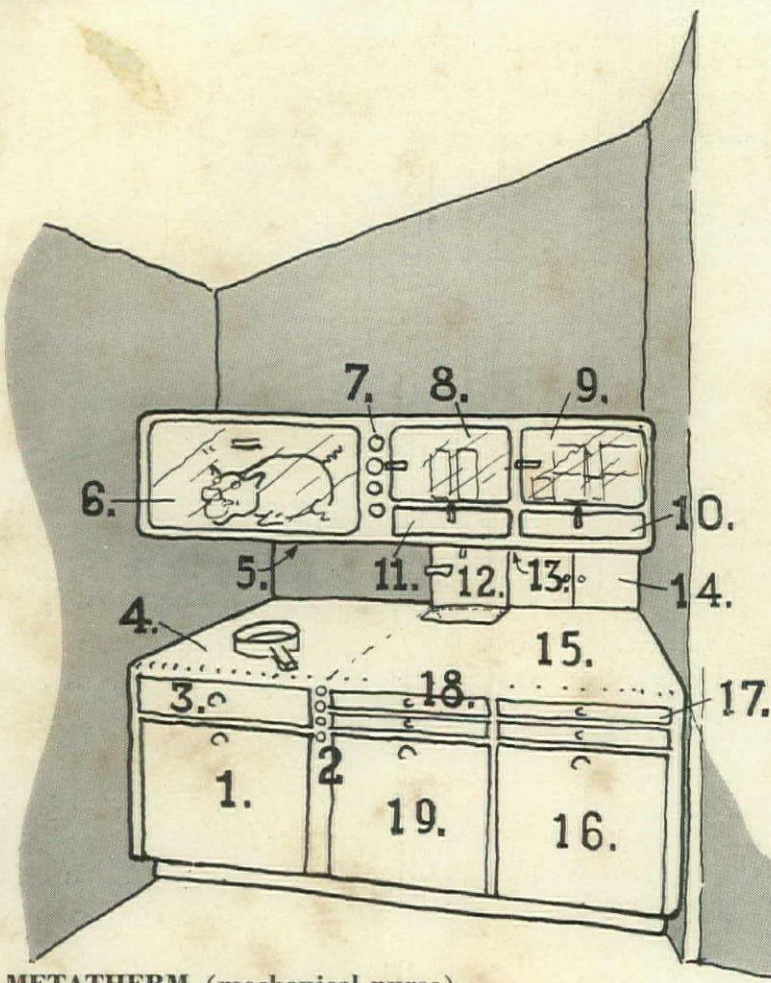


Bernadette bakes a bass and nearly scorches her posterior.



Suzy selects a zucchini.





### METATHERM (mechanical nurse).

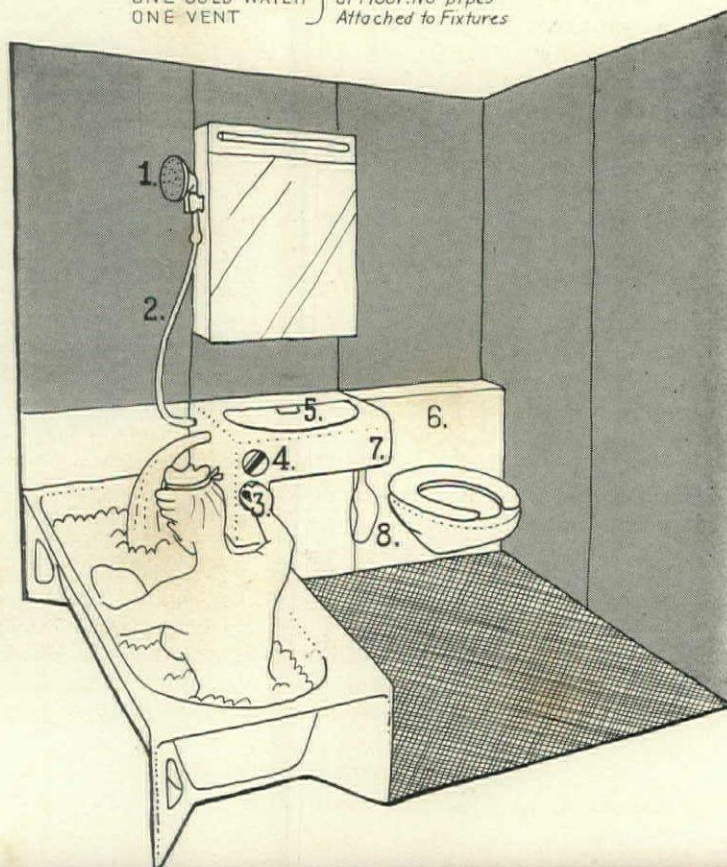
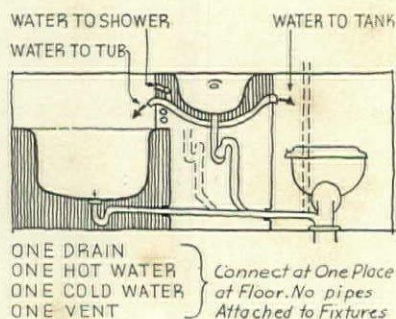
"The Metatherm with its connecting service cable (see plan on preceding page) will contain all mechanical and chemical equipment needed to supply all of the functions of the house's mechanical core. For varying climates and remoteness from utilities the Metatherm will be in several types. For extremes in climate and remoteness from utilities it will be more complex, servicing heating, cooking, air conditioning, lighting, chemical disposal of sewage, water heating, filtering and refrigeration. This will be done with only one, or at the most, two units supplying power through pressure pumps. It may carry its own fuel or may be supplied with gas or electricity.

### PIPELESS BATHROOM.

"The tub, lavatory and closet (right) are made of thin, tough plastic in a variety of light colors and white. As the fixtures are cast in sections and fused together, plastic tubing, traps and fittings are integrally cast so that each fixture contains its own raceways for water and waste. Ports at the side of each fixture will fit into ports on the side of the adjacent fixture, and when locked together with a synthetic rubber gasket will form a permanent, water-tight connection. Hot, cold and waste lines will enter the pipeless bathroom at *only one point*—the point of connection to the Metatherm. No faucets will clutter up the fixtures, since water control knobs (3 and 4) are flush with the face of the lavatory, and flow will be controlled by sliding sleeve valves in the plastic raceways. The shower head (1) may be set overhead at the end of the tub or moved about for shampoo or child washing. Made of synthetic rubber with flexible rubber hose and (2) it will have an interchangeable top for shampoo or douche and another head containing cleaning material for cleaning fixtures. Lavatory will have integral, broad plastic spout (5) with knee control (8) for pressure. Toilet (6) will have paper and control on side of lavatory (7)."

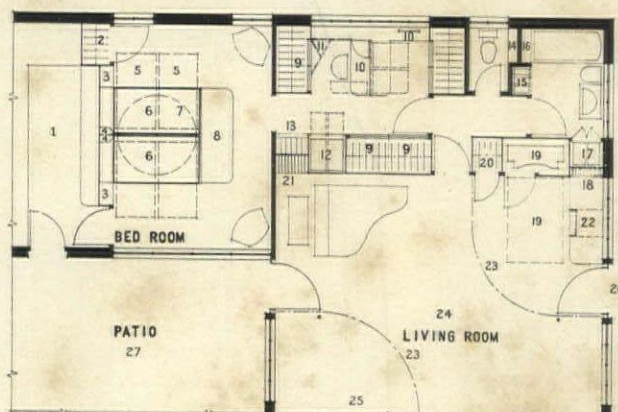
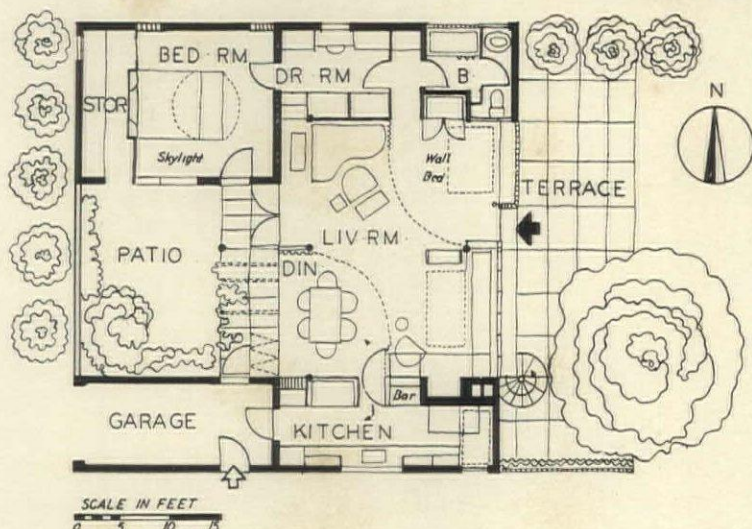
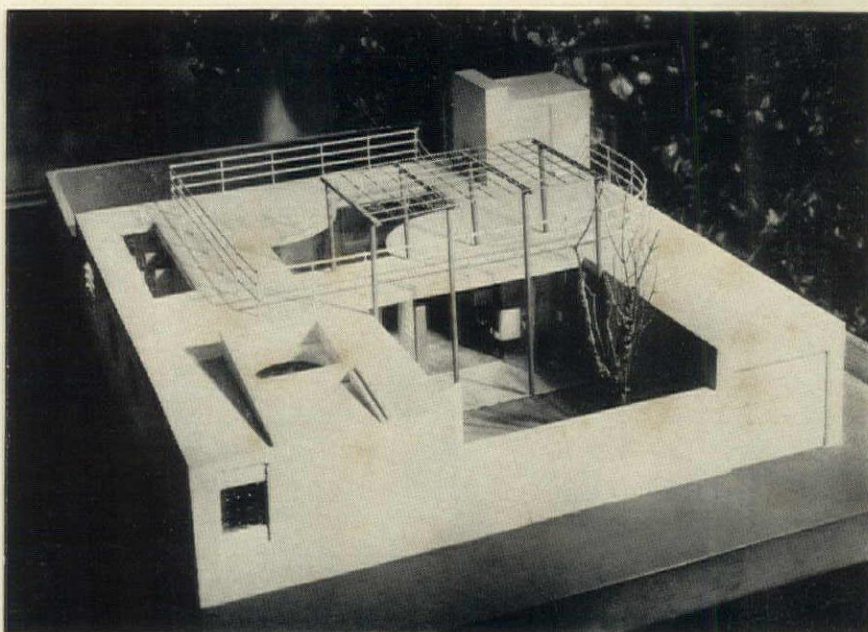
### KITCHEN UNIT.

"The housewife of 194x will probably use mostly frozen and dehydrated foods which will take little storage space and arrive at her door ready to cook. Her refrigerator will not necessarily be large and therefore can be part of a single mechanical unit. This unit will be all equipment in one—refrigerator, stove, washer, refuse disposal unit and storage (left). The hot end of the unit has a raised oven (6) with a transparent plastic door. The floor of the oven as well as the top of the stove below (4) is constructed of stainless-steel plates heated by compressed Freon (also used for refrigeration). The pressure cooker (12) is also used as a 'steamer' for dehydrated foods and as a dishwasher. Beneath the cooking top is the broiler (3), which pulls out like a drawer, and a storage compartment (1). Controls for the cooking top, broiler, steamer-dishwasher and water supply temperature are at the right of the cooking top (2), and a continuous exhaust-fan opening (5) is directly above. The refrigerator has two compartments (8 and 9), which operate at different temperatures for frozen foods and foods which have been thawed or re-hydrated. Controls are located between the refrigerator and the oven (7). Ice trays (10 and 11) can be pulled out without opening the doors. The exhaust fan opening continues under the refrigerator (13) and a small 'sump' (which replaces the conventional sink, is located directly under the steamer (12) at the back of the work surface (15). A storage compartment for bread, etc., is provided alongside the steamer (14) and shallow drawers for plastic plates, utensils, etc., beneath the work-surface top (17 and 18). The compartments below (16 and 19) are storage space for dehydrated food and an automatic washer, with flexible connections to water lines.





"This little house started out as a substitute for the one-room apartment—minimum space for two people. The living room is designed with four 'corners' for furniture: the piano corner with radio and phonograph, record and music storage; the fireplace corner with a large couch, books and the fire; the desk corner with racks for prints. The last is also used as a vestibule and an emergency guest room by pulling the heavy curtain. The dining corner has a built-in linen and dish cupboard. Another heavy curtain isolates this corner for setting and clearing the table. Wide sliding doors open the room into the patio—weather and insects permitting. I have provided a small circular stair to the roof. There I plan an open fireplace for al fresco meals, a small shelter for furniture storage and a dumbwaiter from the kitchen. The kitchen is one long line of tightly spaced equipment—heater, laundry trays, bar, sink, stove and refrigerator. Details of the bed-dressing-room section are shown below."

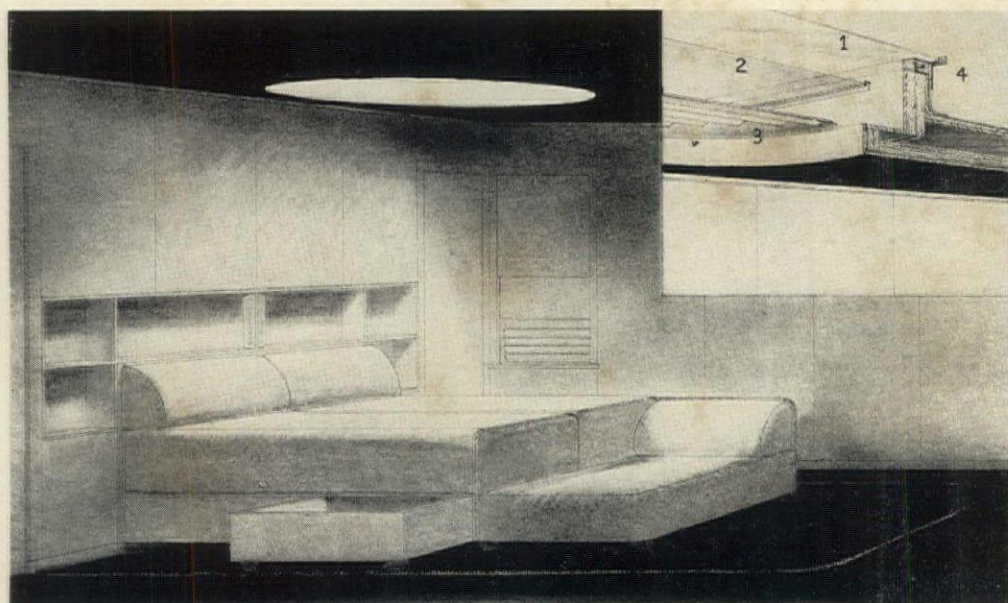


Key to detail plan: 1. Store room. 2. Robes and blankets. 3. Book shelf. 4. Bed lights. 5. Drawers for bedding. 6. Twin beds. 7. Skylight in ceiling. 8. Chaise. 9. Wardrobes. 10. Dressing tables. 11. Pivoted mirror for case. 12. Drawers and hats. 13. Shoes and drawers. 14. Toilet-room shelves. 15. Towels. 16. Bath shelves. 17. Linen. 18. Books. 19. Emergency bed. 20. Coat closet. 21. Music and records, radio and phonograph. 22. Desk with racks for prints. 23. Curtain partition. 24. Living room. 25. Dining area. 26. Entrance court. 27. Patio.

### BURNHAM HOYT



Architect, Denver, Col., was born in Denver and studied at the Beaux-Arts Institute of Design in New York. Experience with George B. Post and Sons, Bertram Goodhue, Army Camouflage Corps and Pelton, Allen and Collens. Taught design at New York University. Architect for Denver Childrens' Hospital, Boettcher School for Crippled Children.



Corner detail above shows construction of bedroom skylight: 1. Sliding glass cover. 2. Removable screen. 3. Folding blind. 4. Roof.



## MICHAEL GOODMAN

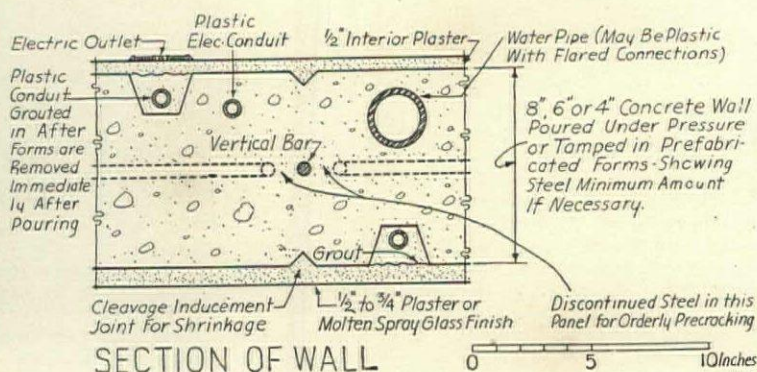
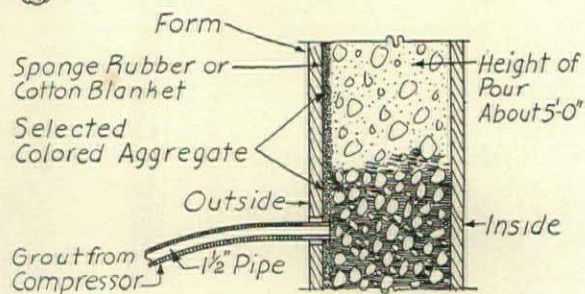
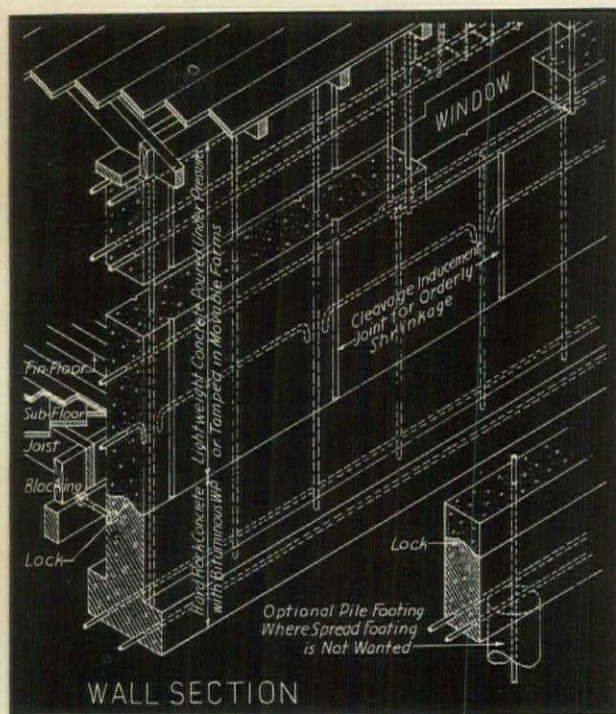
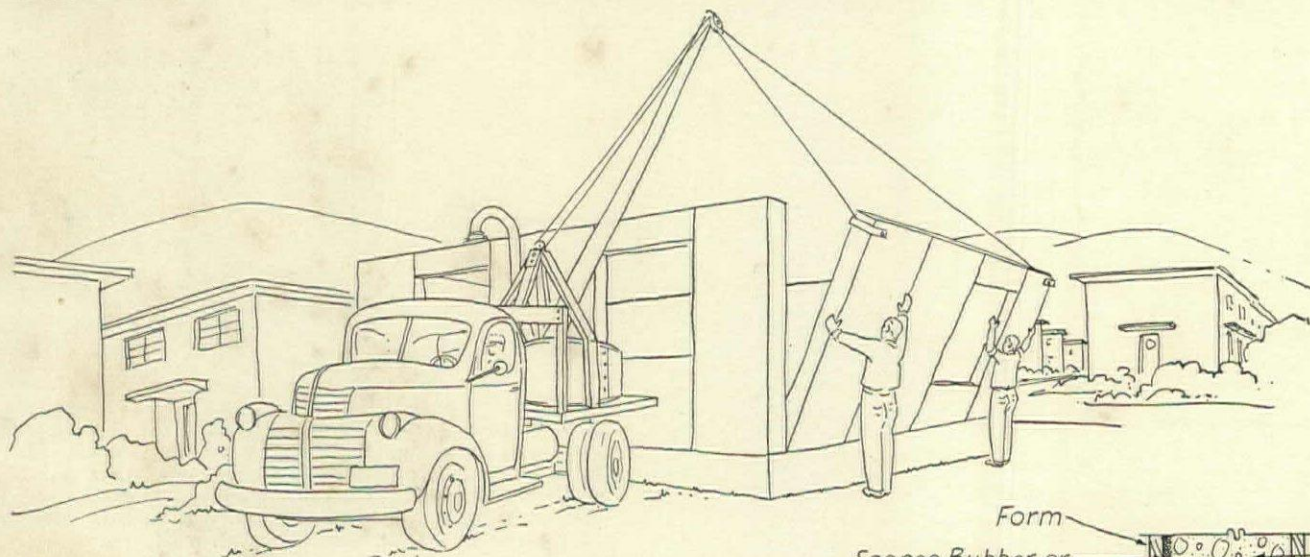


Architect, Berkeley, Calif., was born in Russia and studied at the University of California. He is known for his early experiments with redwood and plywood houses and is now an Associate Professor of Architectural Design and an Instructor in Graphic Arts at the University of California.

"Precision control of placing concrete promises to make this material a rival of the much-heralded plastic age. The use of concrete is emerging from the 'Stone Age' into the machine age. Small concrete houses, heretofore inhibited by excessive rule-of-thumb reinforcing rules, may not need any steel at all, and if any, they may need only a small part for shrinkage purposes. Spread foundations may be discarded in favor of 'spikes' or piles with little reinforcing. In some cases, as on the Pacific slope, the less contact the foundations have with the soil, the less cracking the house will show with aging. Pumped concrete may have rich natural aggregate in any chosen color on the exterior as well as the interior wall surfaces, placed mechanically in a day's work with the aid of vacuum or suction processes. Sprayed molten glass in any color may be applied to concrete surfaces finished, say, with white cement to show the color with greater luminosity. In addition, sprayed metals may of course be used.

"Acceptance of welding stimulated by the war may result in changes in the methods of placing steel reinforcing based upon studies of the resistance of reinforced concrete to bombardment. Prefabricated spot-welded reinforcing cages will supplant the old method of lapping steel bars which cannot resist sudden shock.

As to forms, we are adapting more and more the movable, or slip type of forms of various sizes and assemblies delivered to the job in fabricated form. Such forms in most cases may be removed from the work in about 20 minutes after placing the concrete. The 28-day concrete form is costly and laborious. Pouring concrete into





these carpenter-built forms seldom assured uniformity of distribution and quality for which the original mix was designed. Precision control of concrete is the type of engineering coming to be recognized. The curse of old design used to show up in the familiar crack-patterns at the places of restraint (beams, columns)—predictable at times with mathematical accuracy—or in a crazy hieroglyphic pattern in the case of poor pouring, etc. "Architectural engineers are familiar with better design mixes and the care in selection of aggregates which have vastly improved the quality of concrete and mortar. Until recently, reduction of excess water necessary to place concrete, and workability and plasticity, were the problems to be solved. With the new technique shown in the photographs, lightweight concrete with the consistency of snowballs is packed by unskilled labor into movable aluminum forms and forms may be moved up in 15 minutes to an hour. The best way is to have the sets of forms cover the whole perimeter of the house and never literally removed from the wall.

"Placeability of concrete mixes holds the secret of the elimination of the 'barbarisms' of primitive concrete which heretofore made attempts at pure exposed-concrete design repulsive even to engineers. The expedient of slick plywood forms was a deceptive attempt at pure expression. Reduction of water content insures improvement with respect to appearance, water-tightness and types of shrinkage. Introduction of bituminous emulsion in mix renders footings waterproof and (subject to further tests) considerably denser.

"The 'pre-packed' method of placing concrete, by first placing the dry aggregate and then pumping in a cement grout is very exciting to the artistic eye and eliminates the uncertainties of hydration curing and uneven stressing. It gives the engineer a sense of esthetic contribution by determining the effect of texture and color and obtaining the results mechanically. With the suction process the builder may remove the forms at once. It is superior to the old acid brush method, which was injurious and uncertain. At present this method as well as the wet pumping of the whole mix is only possible in mass production with machinery. However, small personnel is required even on large bulk jobs.

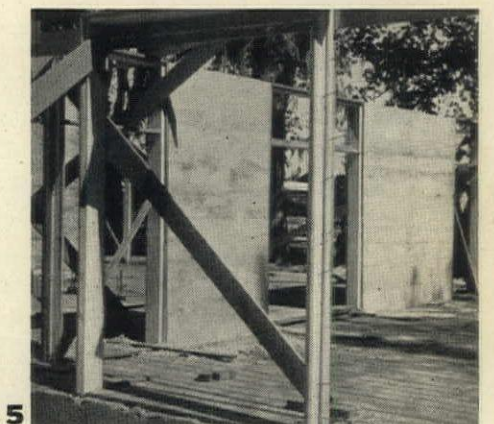
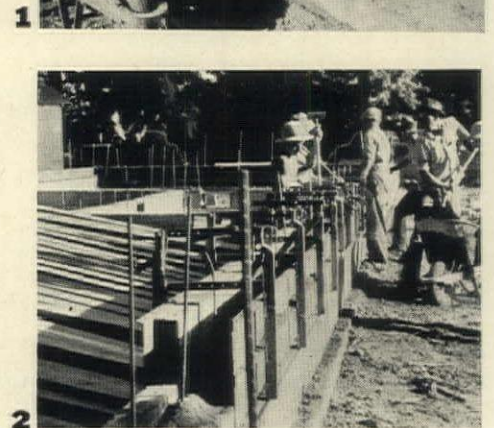
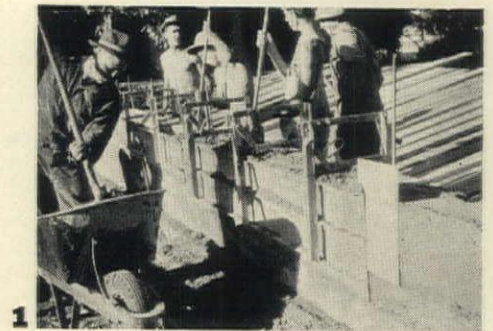
"Lightweight aggregate concretes may develop excessive strength with little need for steel reinforcement in house construction. The shrinkage of the less pure and more absorptive aggregates such as pumice may be regulated as shown on the drawings by pre-cracking or inducing cracks at 3 or 4 ft. intervals by placement of the reinforcing. Repair of such cracks is easy, since they occur in straight, vertical lines. In future construction, it may be possible to omit them. When the forms are removed, surfaces are easily troweled, producing smooth surfaces.

"Lightweight mixes with little water show a 28-day strength average of 3,500 lbs. or more per sq. in. with a lean 1 to 7 mix. A new clay 'modulated' artificial pebble, when pumped in develops a strength of 4,500 lbs. per sq. in. with a 1 to 5 mix. Gunning of concrete surfaces induces shrinkage.

"Prefabrication in concrete has a problematical future. Hauling labor and assembly handling are rendered difficult by the weight of the units. It is better to pour the whole job on the site in prefabricated slip forms by means of light machinery.

"My engineering consultants for the experimental work on which this contribution is based were Professor Harmer E. Davis and Walter Steilberg of the University of California."

**PHOTOS SHOW, 1.** method of mass pouring of mix into prefabricated forms. Depending upon design of mix, reinforcing is almost unnecessary for one-story structures. **2.** shows alternative method of placing concrete by pre-packing large and small aggregates in the form and pumping in cement grout under pressure (grout has a plasticizing agent enabling it to fill small voids and remain workable for several hours before setting). No shrinkage occurs in this type of concrete. **3.** shows form being raised to new level, **4.** workman shoveling mix into portion of wall above window. **5.** shows completed walls one-story in height.





### "SPECULATIONS ABOUT THE POSTWAR HOUSE:

The postwar age ought to be an age of plenty for all.

We can and do raise plenty of food.

We can and do find work for all.

Our industrial plant capacity is being increased enormously.

Our power output is being increased enormously.

Our population increase is slowed down.

In all fields of food, power and industrial plant capacity, per family output, therefore, is increased enormously.

Physical work decreases with increased use of machinery.

We will soon produce 100,000,000 tons of steel per year, more than all the rest of the world combined.

We will produce 2,500,000 pounds of aluminum per year, and we are constantly expanding this production.

We are building plywood factories that will double and triple output.

The great expansion of our industries, using our natural resources in ever increasing quantities, behooves us to outline great conservation programs.

Before this war we had a construction plant capacity that could more than maintain the pace of population increases and maintenance.

Increasing the construction capacity has never been a problem.

AND WE THINK IN TERMS OF MINIMUM HOUSING STANDARDS. . . .

WE MUST THINK IN TERMS OF MAXIMUM HOUSING STANDARDS, for such a maximum standard is available to all.

★"It is possible, with postwar plant capacity, to supply adequate shelter for all; this adequate supply **MUST** be available to keep the plant capacity busy, and some cooperative or collective or other method must be found if present methods prove inadequate.

★"Shelter and living space must be flexible; there must be many solutions to particular problems. There is no single solution to the simple house which supplies shelter to a single family. The measuring stick must be based on the need of the individual family. We have itinerant workers who will need mobile shelters, and we have farmers and shopkeepers and professional people who have no itinerant inclinations and who cannot have them, who will demand houses anchored to the ground upon which they are placed; we have many people who will not want to live in houses at all.

★"Transportation will not be a problem, and the matter of site selection has broadened in scope.

★"Full advantage of natural phenomena will be encouraged in the planning of these houses. The individually owned airplane is a distinct possibility which will need to be planned for. As the automobile has upset ideas of city planning, so the airplane will upset certain contemporary concepts of urban and suburban planning. Some of us will feel crowded in garden cities, and others will not feel crowded in twenty-story buildings.

★"What space requirements are necessary for the average

family? Certain basic assumptions must be made to develop even the simplest plan. And to keep out of the realm of fanciful speculation, certain of today's requirements are the only things upon which we can base our plans. And such plans are capable of many solutions, no one of which may in any way be considered a panacea. The invention of a new construction method might give us limitations that might scrap all known plan organizations, but might conceivably open up many avenues of approach new to sound planning.

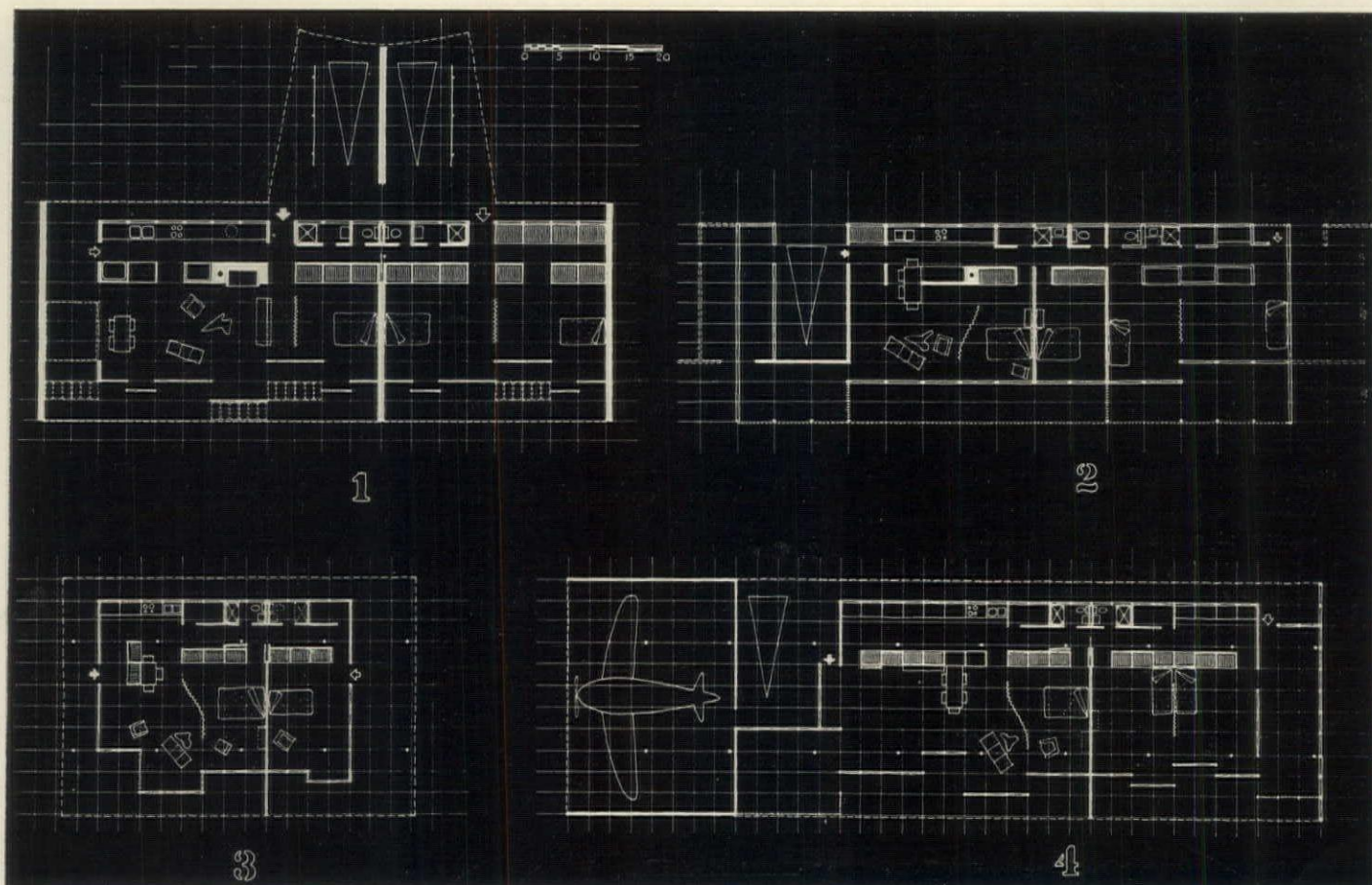
★"In addition to supplying the simplest wants of a family, the findings of social scientists and the many studies available have been hardly touched upon by architects, nor found expression in their house plans. Below are a few taken from a study of the contemporary house, made for the United States Gypsum Company: 1. Adult parents have fixed habits. 2. Children are given more independence today. 3. The adolescent needs his own rooms to entertain his friends in his house. 4. The adult child (college student) still lives with his parents, and may live with them indefinitely. 5. The young married couple may not have achieved financial independence from the parents. 6. Increased leisure for all the family indicates the desirability of more definite physical separation of its elements. 7. Medical science has increased the life span, and elderly people must have independent, though small, quarters. These are some facts which may well be taken into consideration in planning. A familiarity with the tenets of social psychology should be of vast use to the architect in planning his houses."

GEORGE FRED KECK



Born in Wisconsin, he attended the Universities of Wisconsin and Illinois, graduating as an architectural engineer in 1920. Between 1920 and 1926 he worked in Chicago, taught at Illinois and traveled. He established his office in 1926, and has worked on housing of all types, with emphasis on single-family dwellings. He is at present head of the Department of Architecture, School of Design in Chicago.





The illustrations indicate a few possibilities open to the postwar house plan. The idea of the plan is emphasized rather than the construction method, although it is evident from an inspection that some of the plans can be built using present prefabrication techniques. 1. Trans-duo house, designed for U. S. Gypsum Co.

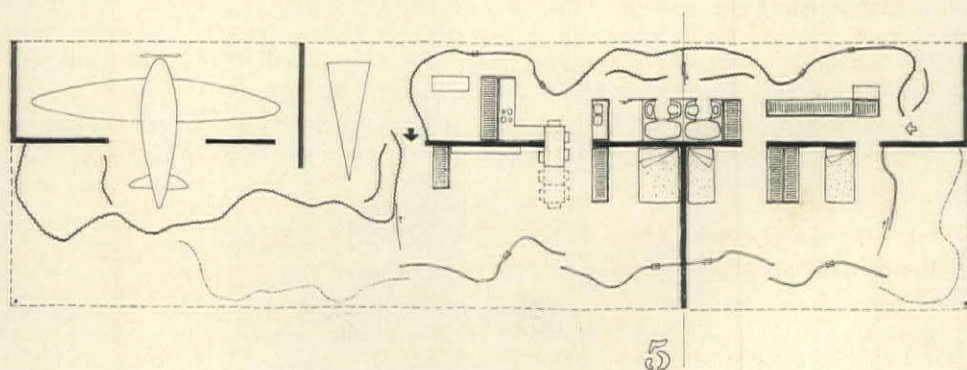
2. House designed for Revere Brass & Copper Co. 3, 4. Indications of flexible floor plans developed through column construction. 5. Indication of a rigid frame or backbone, to which may be attached some new type sheet construction.

"Balloon construction, a development of the power saw, is probably on its way out. It is still much in use because no one has come forward with a better invention. A little speculation on what might take its place is in order. At present many sheet materials are being produced, such as sheet metals, plastics, plywood and hardboard. The quality of tension which all these materials possess cannot be used effectively with present construction methods, so it is reasonable to assume that a development of skin-tension construction is in order. Houses designed for this construction may assume complicated shapes, or they may be simple. Full-scale experimentation in the field, with the cooperation of competent architects, is needed. Then technicians must be developed among the workers in the building industry.

"One day a new technique will establish itself, and then standardization will result. This technique will probably evolve from the best and most logical use of the products of the

complicated machines now producing building materials, but since one can only guess at the results, this is a better time for experiment than for standardization. And such experimentation is just what every progressive architect has been doing and will be doing for some time to come.

"It is silly to indulge in predictions: the astrologers do a better job. But the most encouraging aspect of postwar house construction can be attributed in large measure to the work that has been done. The accepted fact by the building industry that change is imminent is its most encouraging feature. We are on the threshold of vast experiments not only in building but in all fields of human endeavor, including social organization. As in the past, such changes will find themselves reflected in the organization of family life in the houses built for postwar living. And the construction method that brings such houses into existence will have to meet the new specifications, whatever they may be."





"The house of 194x should be a *one-floor house*, but this floor should be a story above the ground, making room beneath for storage, drying, garage, garden equipment and a childrens' playroom at ground level. There should be no *boxlike permanent rooms* on this living floor—just space. Initially, this space would be divided only by a *completely prefabricated* kitchen bay, bathroom and closets. Later on, with children, it would be further divided into smaller separated areas or rooms through the addition of closet units. In a word, other expansible plans have contemplated *adding* area, but I feel that the best thing is *dividing* area, beginning with space as simple and economical as loft construction.

WILLIAM WILSON WURSTER



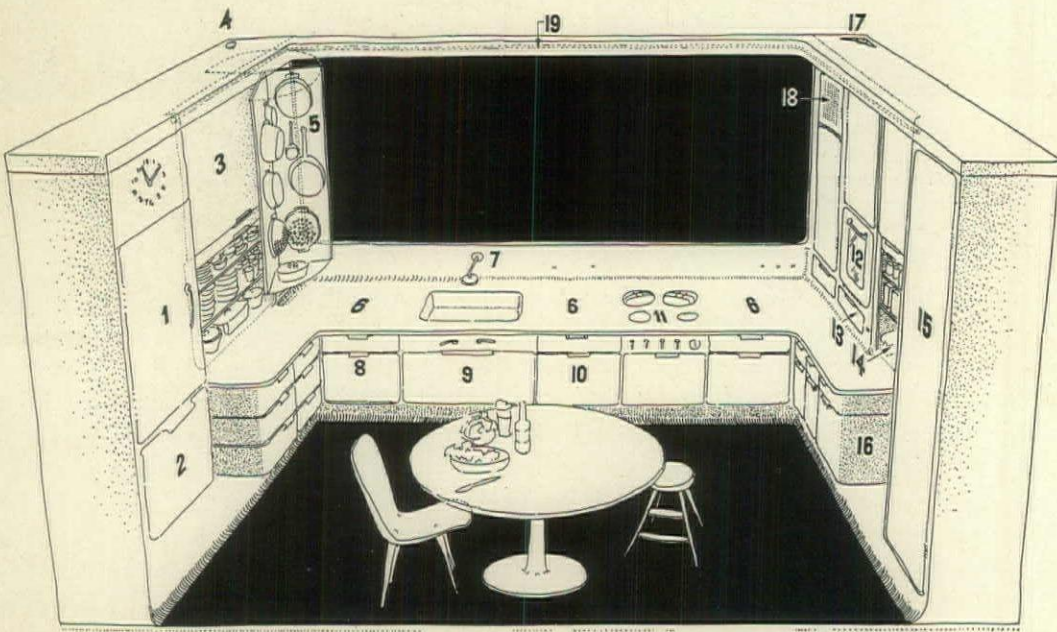
Architect, San Francisco, Calif., he was born in Stockton, Calif. and studied at the University of California. He worked in the San Francisco office of John Reid and in Sacramento for Charles Dean. After a year abroad and further experience with Delano & Aldrich, he opened his office in 1926. He is well known for his extensive residential practice and more recently for his activity in war housing. Fred Langhorst collaborated with Mr. Wurster on this project.

PRESENT FIXITIES

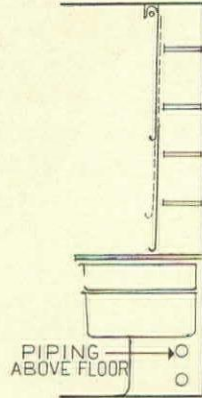
- Unalterable areas and arrangements, permanent wall partitions.
- Size usually limited to minimum initial needs and impossible to expand except at considerable expense.
- Mechanical units not sufficiently standardized for factory production.
- Job installation of mechanical cabinet-work slow, complicated and variable in workmanship.
- Walk-in type closets inconvenient and wasteful of space.

DESIRABILITIES

- Adjustable space, easy to change.
- Initial abundance of inexpensive space to provide:
  1. Maximum 'openness' for two-person family.
  2. Combination of open and separate areas for a three-person family (segregation becomes desirable).
  3. Maximum 'separateness' for a four- or five-person family (segregation becomes essential).
- Unit rooms factory-assembled and finished—baths, kitchens and closets.



**KITCHEN BAY** (factory fabricated, truckable). 1. Shallow refrigerator. 2. Deep bottle drawer. 3. Vertical-sliding doors (see section, right). 4. Plumbing vent. 5. Pot and pan storage (swings out for easy reach, uses corner otherwise inaccessible). 6. Counter—heat resisting, resilient, and cut resistant. 7. Non-splatter faucet, handles at front of sink. 8. Storage. 9. Dishwasher and dryer, drawer mounted. 10. Garbage drawer—connected to disposal unit. 11. Pressure cookers. 12. High oven. 13. Condiment drawers. 14. Toaster, griddle, coffee pot, mixer, etc. 15. Brooms, etc. 16. Drawers below counter. 17. Heat vent. 18. Fan behind. 19. Tube lighting plus center lighting.

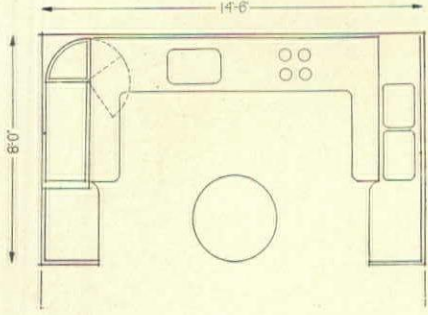


KITCHEN PROBLEMS

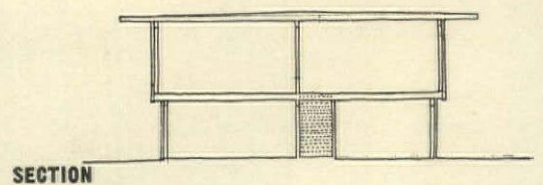
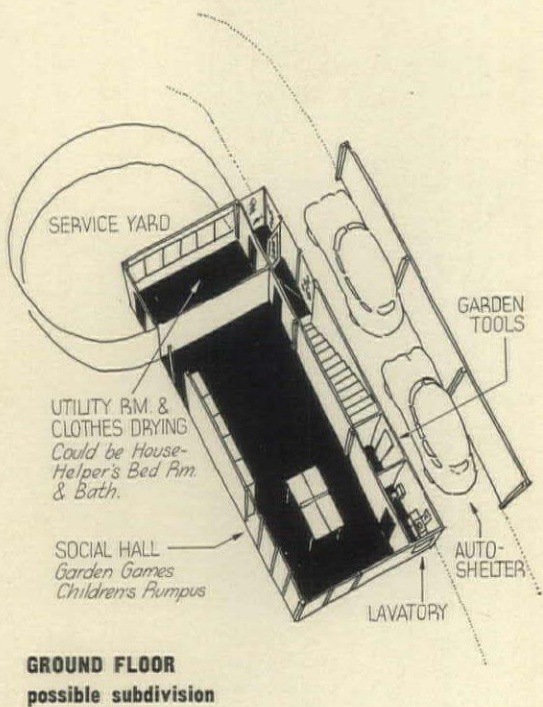
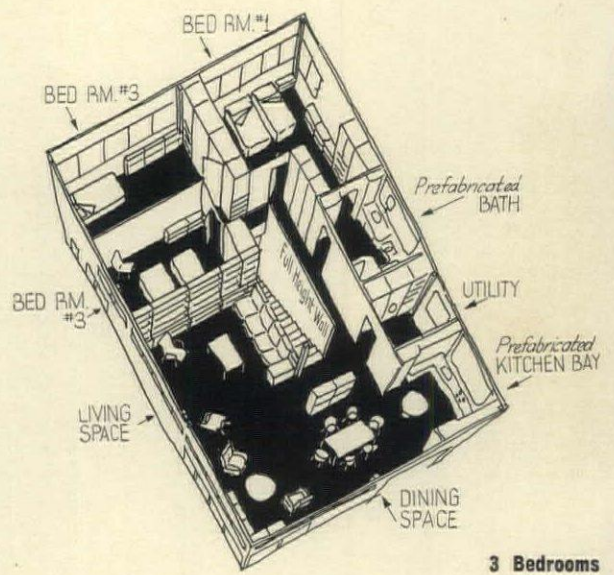
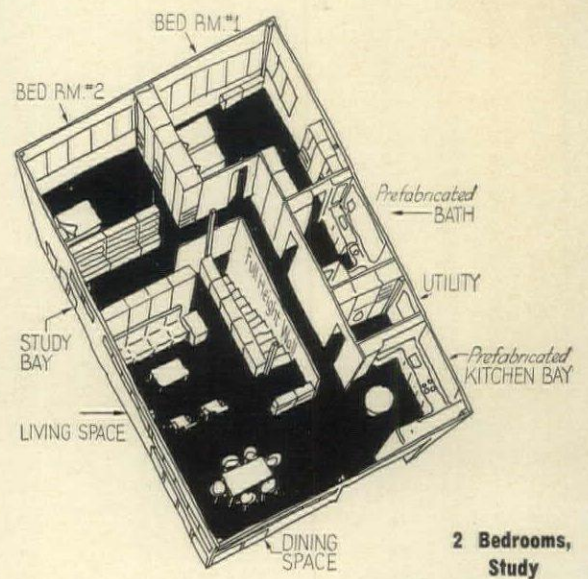
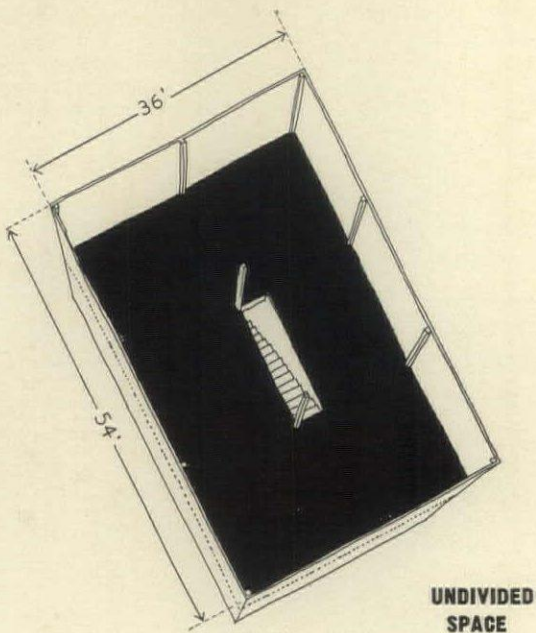
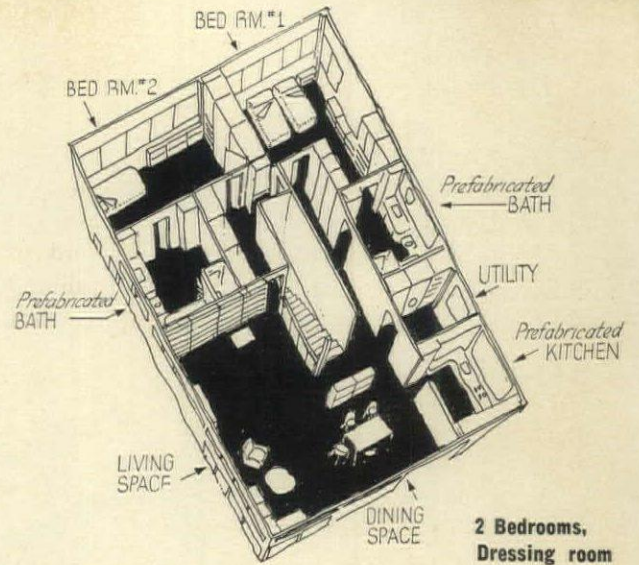
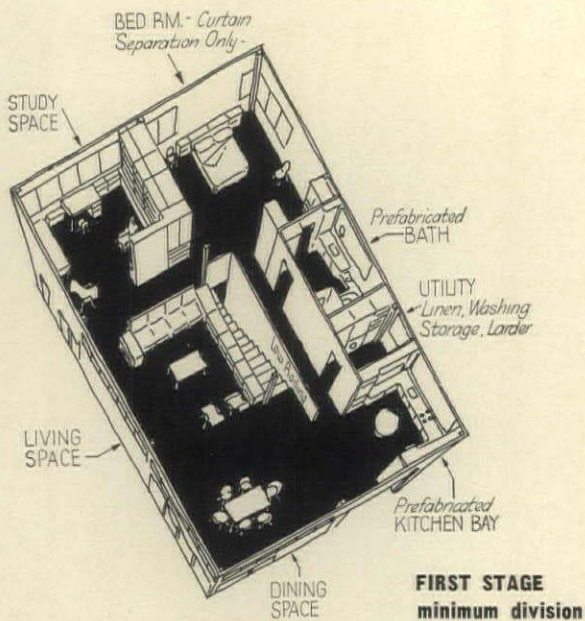
- Cooking too centralized, low oven requires stooping, light (unless on stove) usually comes from back.
- Storage cupboards too high and too low, swinging doors get in the way.
- Table height workspace and cutting boards needed.
- Refrigerator too deep.
- Garbage disposal a chore.
- Dishwashing in sink unsanitary, towel drying unsatisfactory.

POSSIBLE SOLUTIONS

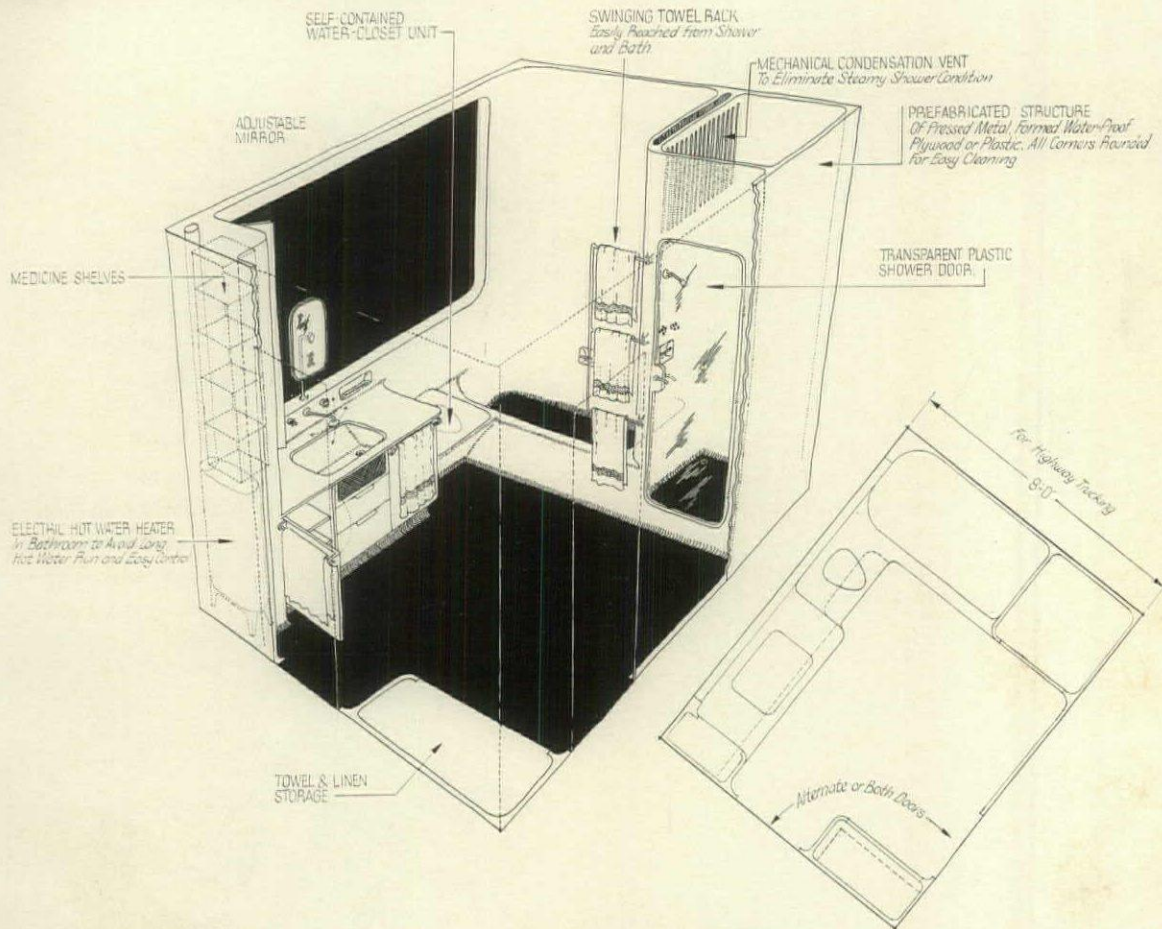
- Portable electric units used anywhere, high, wall-type oven.
- Cabinets should extend down to counter, Upper part for dead storage.
- Separate worktable, cut-resisting counter.
- Refrigerator in two parts, upper part shallow, lower part deep drawer.
- Drawer-type garbage bin with flushing rim, connected to disposal unit.
- Large, drawer-type dishwasher-dryer.









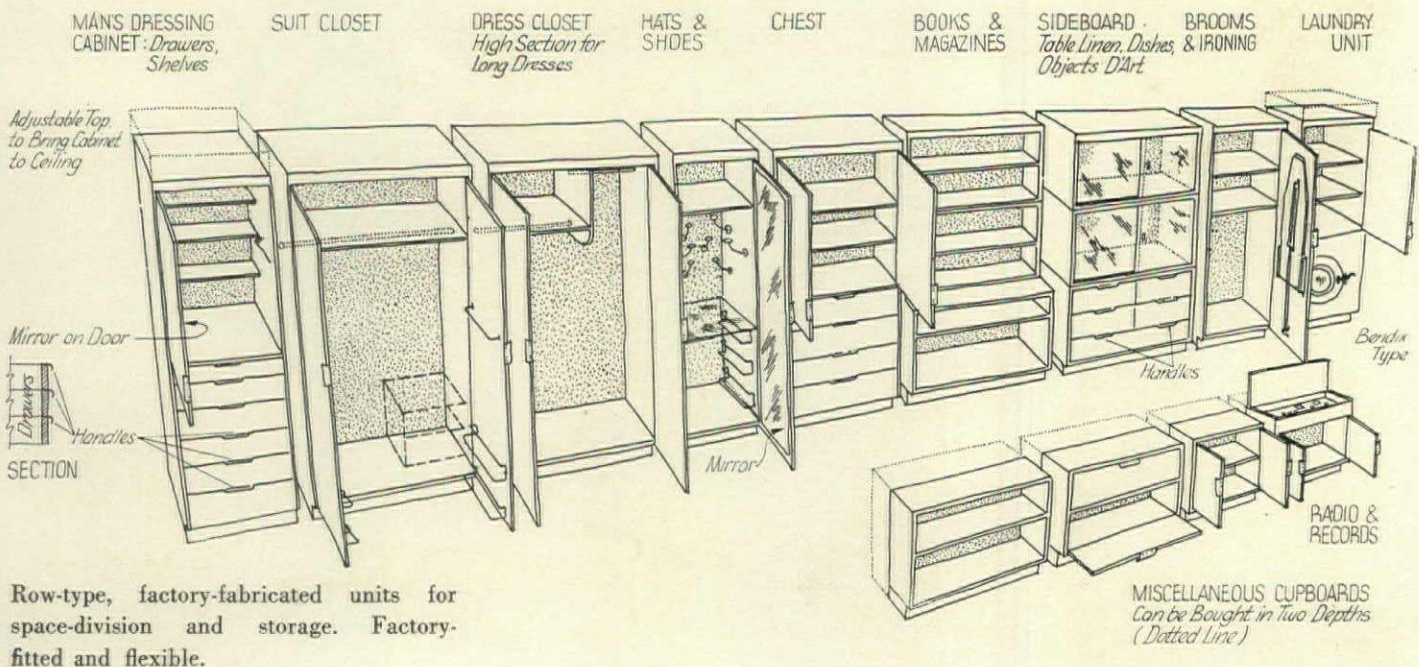


#### BATHROOM FAULTS

"Hot water slow to 'come up.'  
Scalding in shower from drain on cold supply elsewhere.  
Mist, especially on mirror.  
Poor light for shaving.  
Too few towel racks.  
Lavatory too small to bathe baby.  
Unit-type fixtures hard to clean.  
Noise.

#### POSSIBLE SOLUTIONS

Individual water heater for bath and kitchen would save hot-water runs through house.  
Large cold supply.  
Fenced ventilation for shower.  
Light from four sides of mirror.  
Continuous towel bars.  
Counter-type lavatory with swing spout, wall valves and hose spray.  
Built-in equipment.  
Redesign of fixtures to avoid spattering."



Row-type, factory-fabricated units for space-division and storage. Factory-fitted and flexible.



# PREFABRICATED HOUSE

DOUGLAS P. MAIER AND

EMRICH NICHOLSON



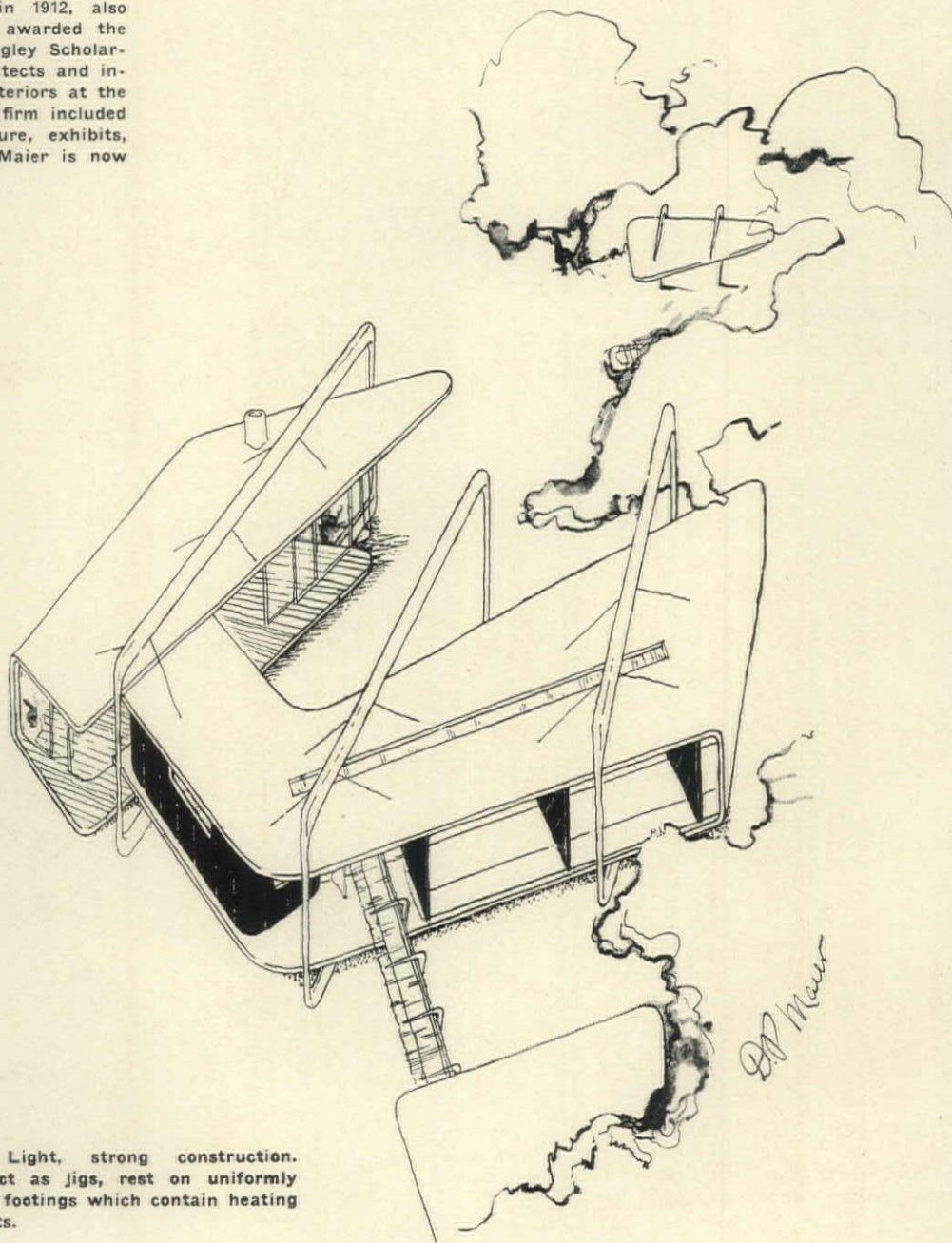
Born in Indiana in 1913, Mr. Nicholson (right) studied at the Chouinard Art Institute in Los Angeles and took his degree in architecture at Yale. He worked with a number of industrial designers, did the interiors of several streamlined trains and designed flag patterns, murals and exhibits for the New York World's Fair. The partnership with Douglas Maier was formed in 1940. He is now with the Office of Strategic Services.

Douglas Maier, born in Cleveland in 1912, also graduated from Yale where he was awarded the A.I.A. Medal. In 1938 he won the Langley Scholarship. He worked with New York architects and industrial designers, did exhibits and interiors at the New York World's Fair. Work of the firm included commercial and residential architecture, exhibits, furniture and industrial design. Mr. Maier is now in the Army.

"Taking a nice, big suburban lot, we have tried to make as interesting, friendly and amusing a living area as possible. Each section has its purpose and is designed to be practical and easily maintained. Housekeeping should be easy and good fun; servants would only get in the way.

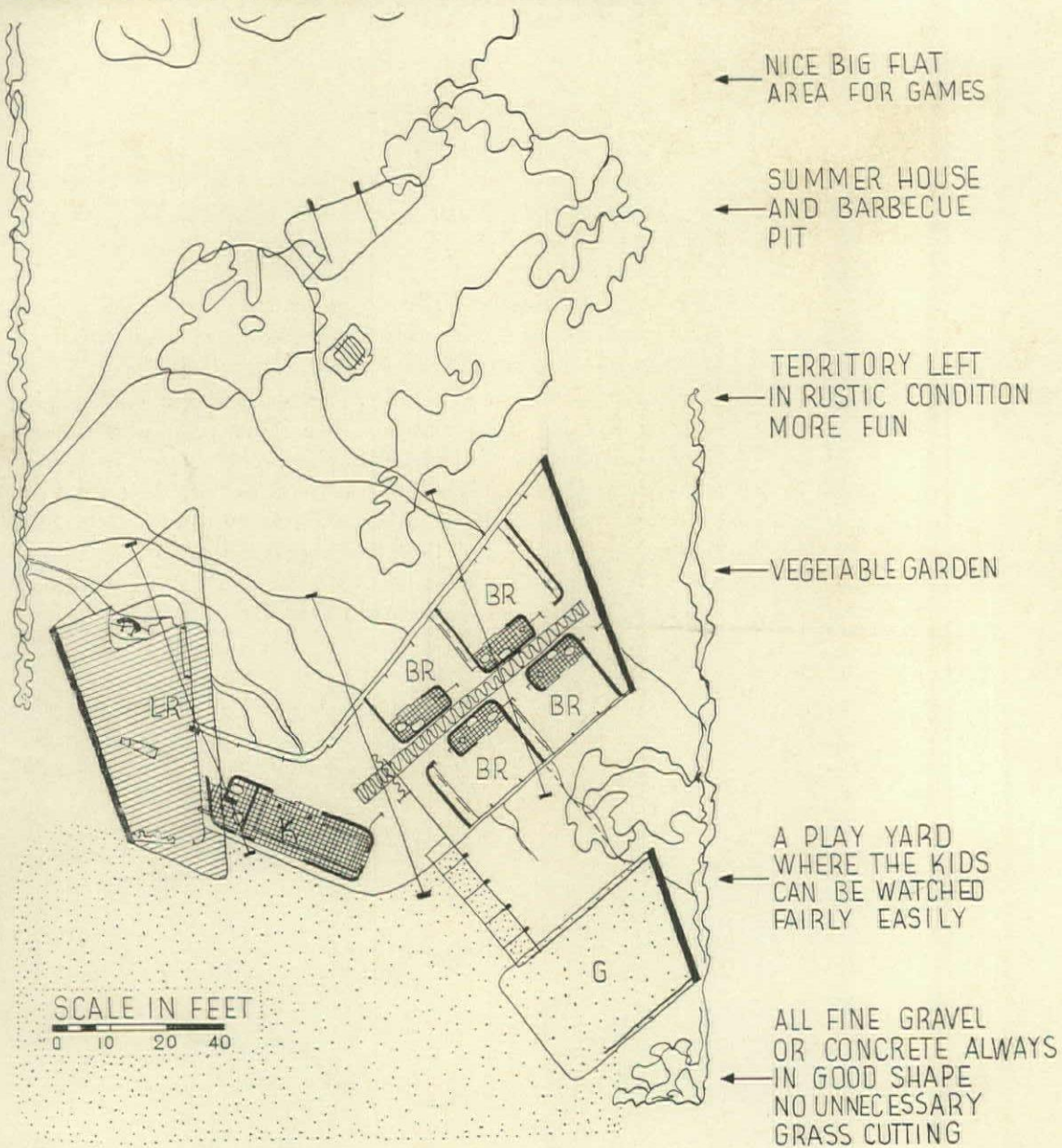
"The neighbors and passing traffic are neither given a cold shoulder nor an open welcome. The ensemble is aloof in a friendly way.

"Prefabrication here has become a tool rather than a strait jacket. We like personality and whimsy. We start with a ditch-digging machine and lay the foundations like sewer pipe, with heating, ventilating, plumbing and wiring in place. Then come the jigs and the structural shell. Bathroom wall sections, prefabricated completely, are put in the best locations and orientations. Exterior glass sections are double, and there is considerable use of translucent glass. We think it's a good idea. We are also expecting to see a lot of laminated wood, plastics and strong, light metals."

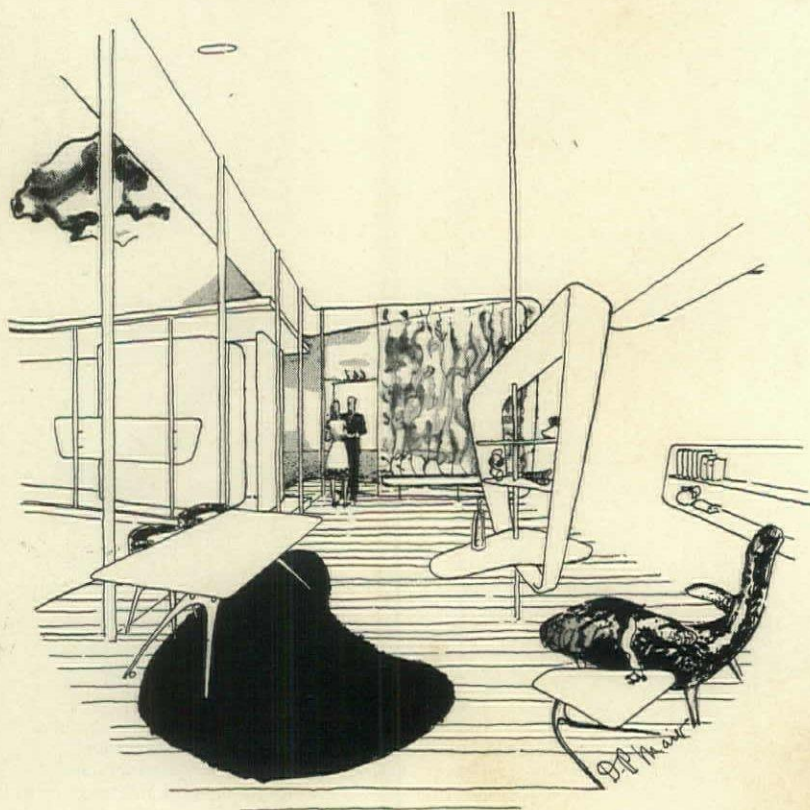


**BOMBER VIEW:** Light, strong construction. Large braces act as jigs, rest on uniformly wide continuous footings which contain heating and cooling units.





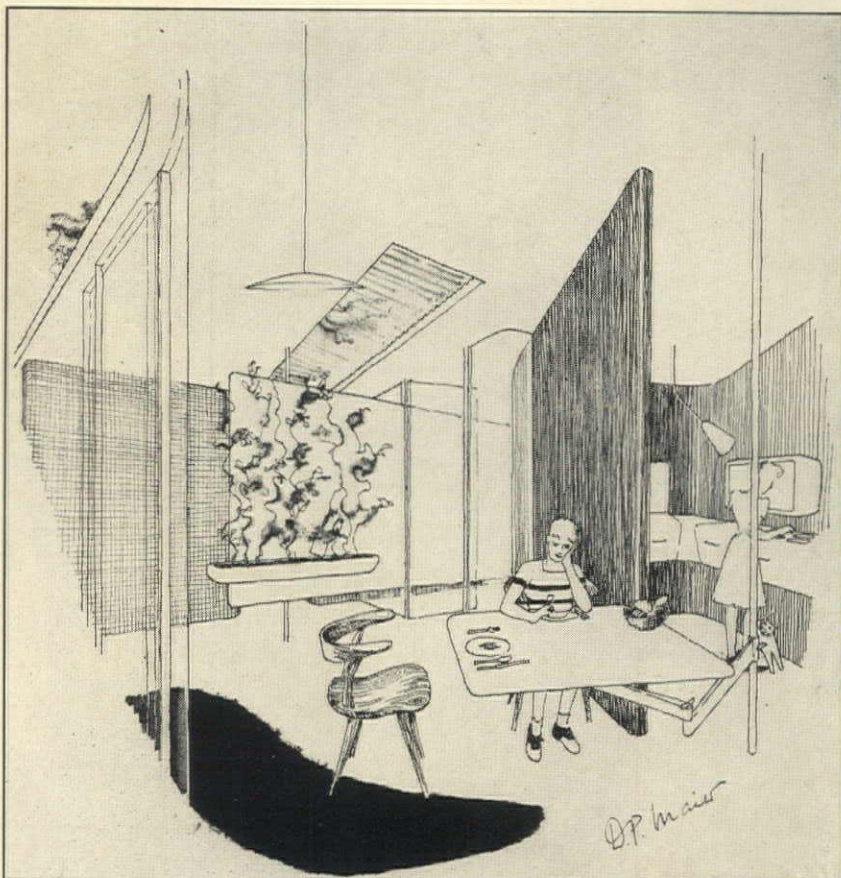
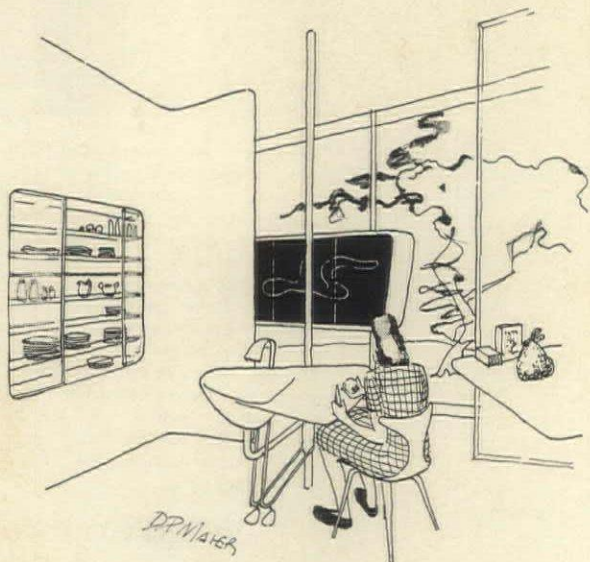
PLAN



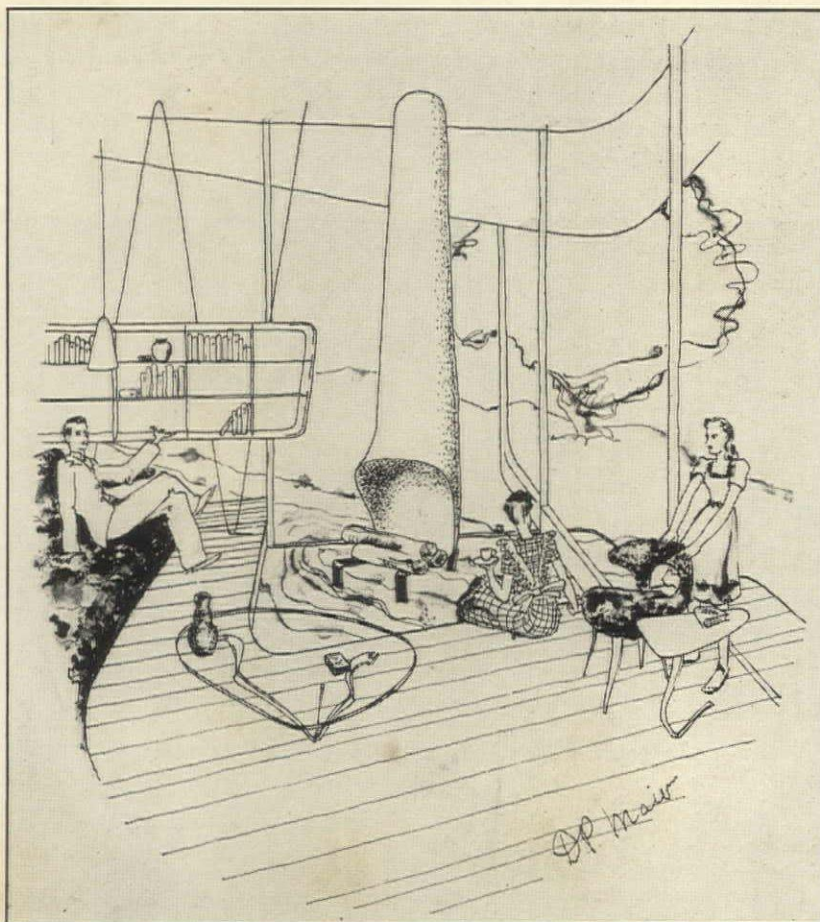
**LIVING ROOM:** Looking towards the front of the house. Table can be set in front of kitchen and wheeled to desired spot. Carry-all can act as screen. Cove lighting and spots.



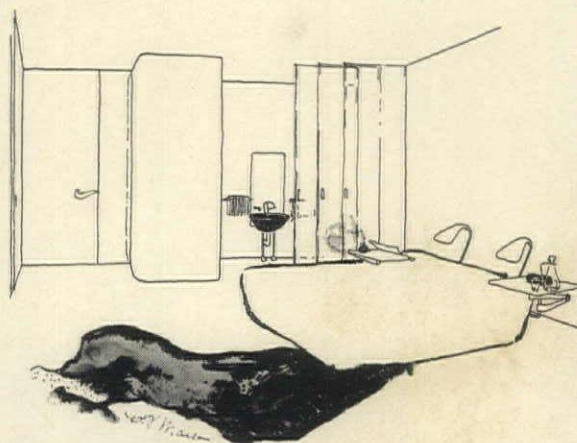
**KITCHEN:** Translucent doors slide open. Very pleasant space. Work sink adjustable. Kitchenware in wall cabinet. Silverware, china and glass in hanging cabinet in passage.



**HALLWAY:** Between living room and kitchen. Table can be moved into hall from kitchen for breakfasts.



**LIVING ROOM:** Looking towards rear. Fireplace built on rocks and natural site. Room for a small conservatory.



**BEDROOM:** Bathroom doors are translucent glass. Complete wardrobe closets on left. Bed moves anywhere. Has attached bedside tables, trays, reading lamps—all adjustable.



RAPHAEL S. SORIANO

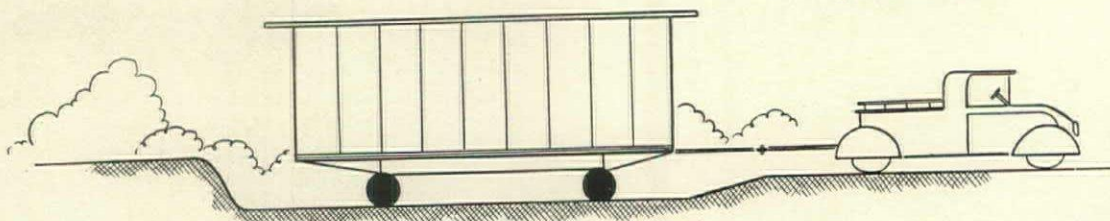


*An umbrella is a shelter.*

"A prefabricated house must have as simple a solution—substituting for the pole a structural utility space giving to all of the rooms its purified cool or warm air, its light, etc.

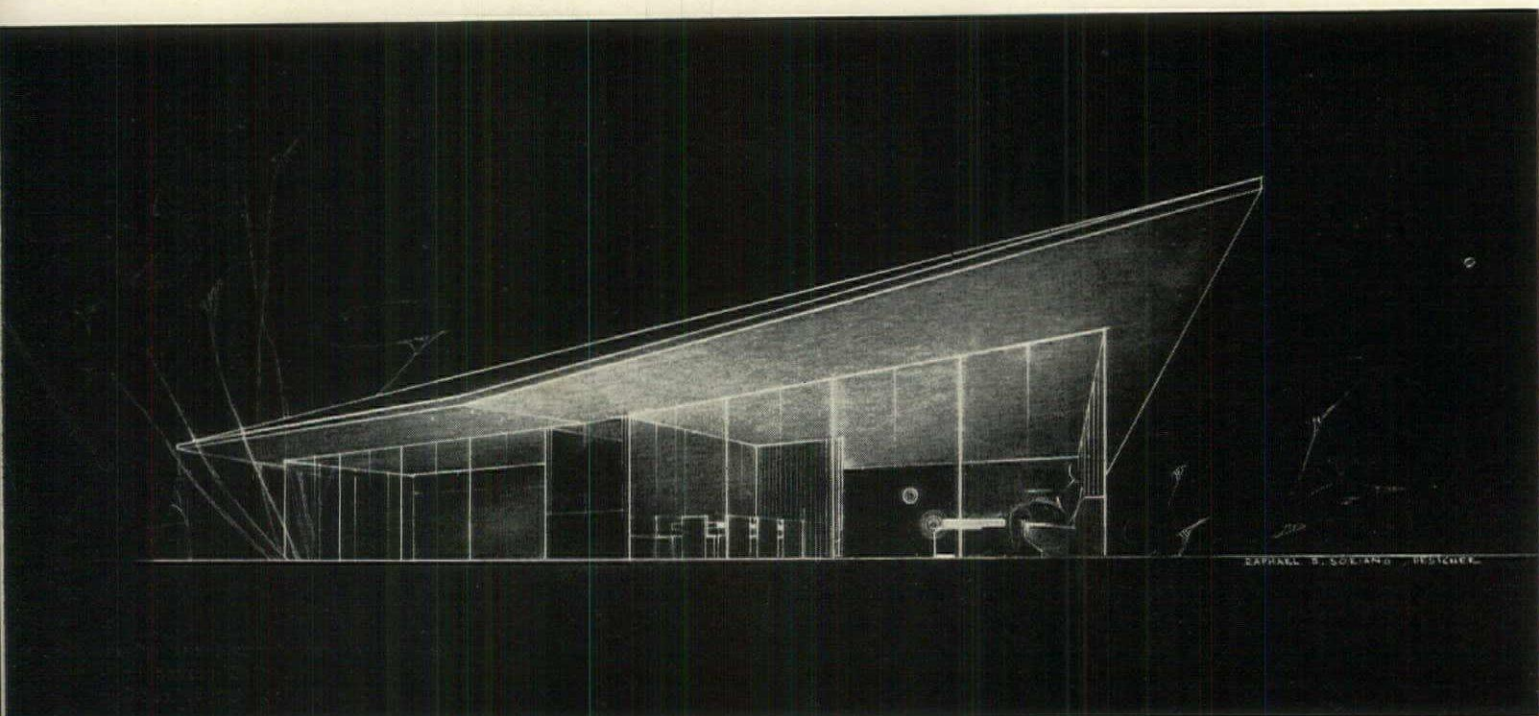


Designer, Hollywood, Calif., he was born on the island of Rhodes (Aegean Sea) and immigrated to America in 1924. Studied architecture at the University of Southern California, where he rebelled against the then-current Beaux-Arts type of instruction. Soon began to practice on his own, designing numerous modern houses, a community center in Los Angeles and a building for the Hallawell Seed Co. in San Francisco.



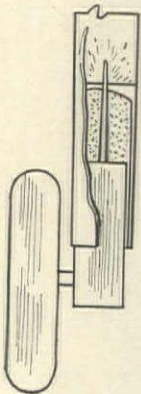
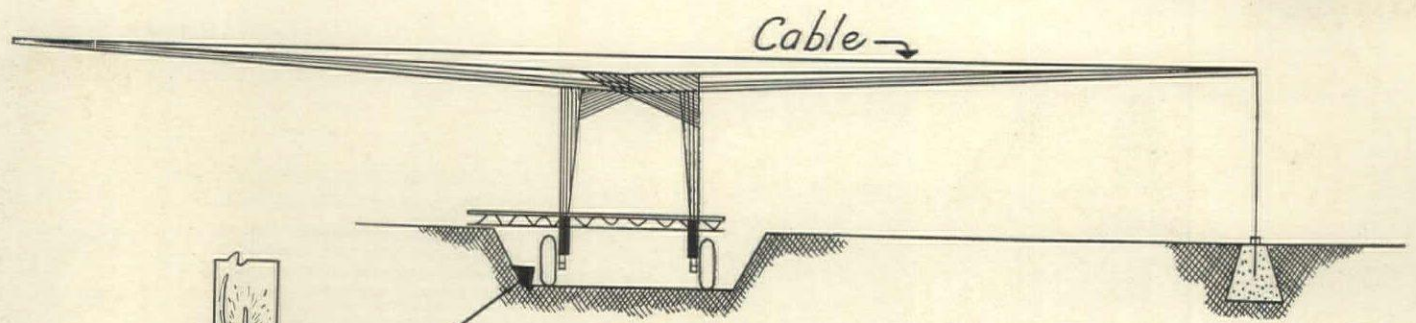
"Ease of transportation, and ease of removing to a new location are also essential. A small service truck can wheel this house to the proper excavated place. No foundations are required, as the structure is completely self-sustained, in the same way that a car or an airplane is self-sustained. Settling and cracks do not exist in this type of building. The only disturbance of

the ground is the 10 ft. to 12 ft. trench for the center part of the structure where the kitchen, bath and utilities are located. Once the building is in place and anchored, the utilities are connected and the earth leveled to receive a sectional, prefabricated type of resilient, insulated flooring. On hillside sites, floors will rest on cantilevers similar to the roof construction."

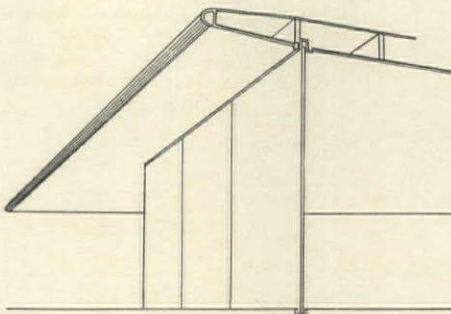


RAPHAEL S. SORIANO - DESIGNER

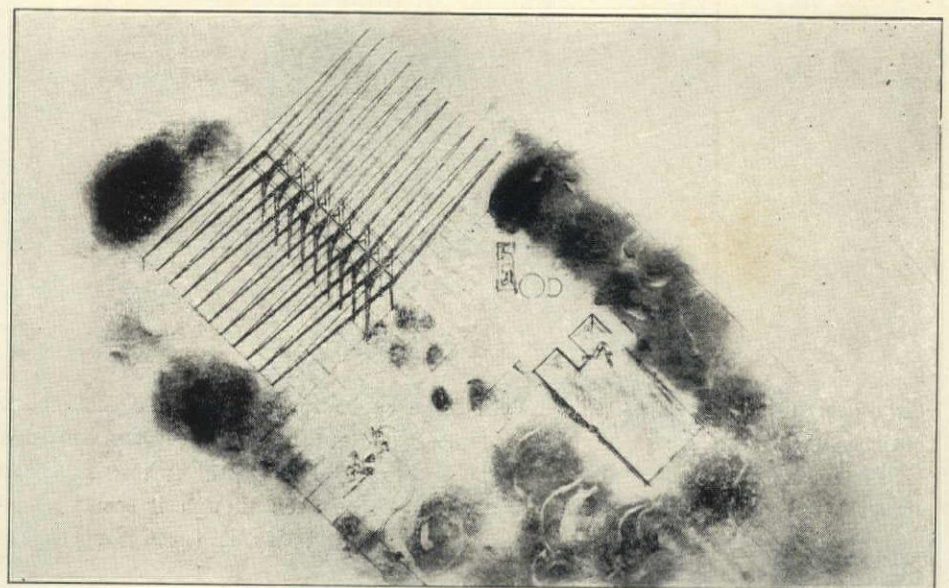




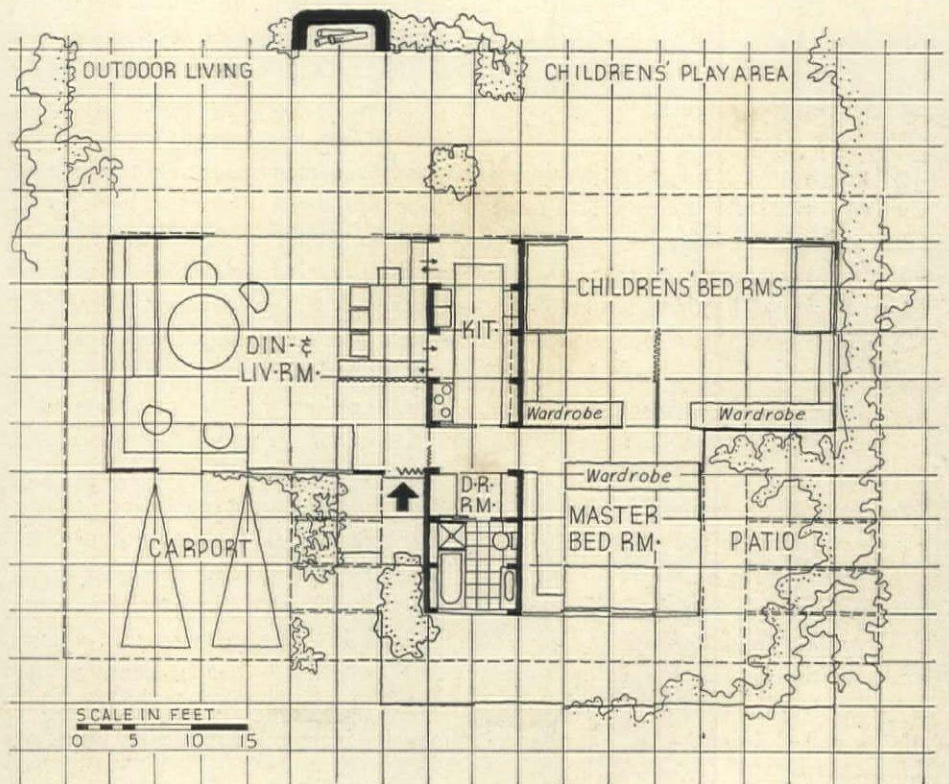
"For ease of transportation, cantilevered roof sections are folded back over central structure. Structure supported on wheels with aero-strut-type seismic impact absorber (left). Wheels can be of rubberlike plastic or other non-deteriorating material. Wheels can also be removed and struts anchored on concrete bases. Cable anchors (above), may be provided at each end of the roof cantilevers where wind loads are unusually high, and balance cable used above the cantilevers for extremely wide spans. Normally, these are not needed since the frame is self-balancing and stable.



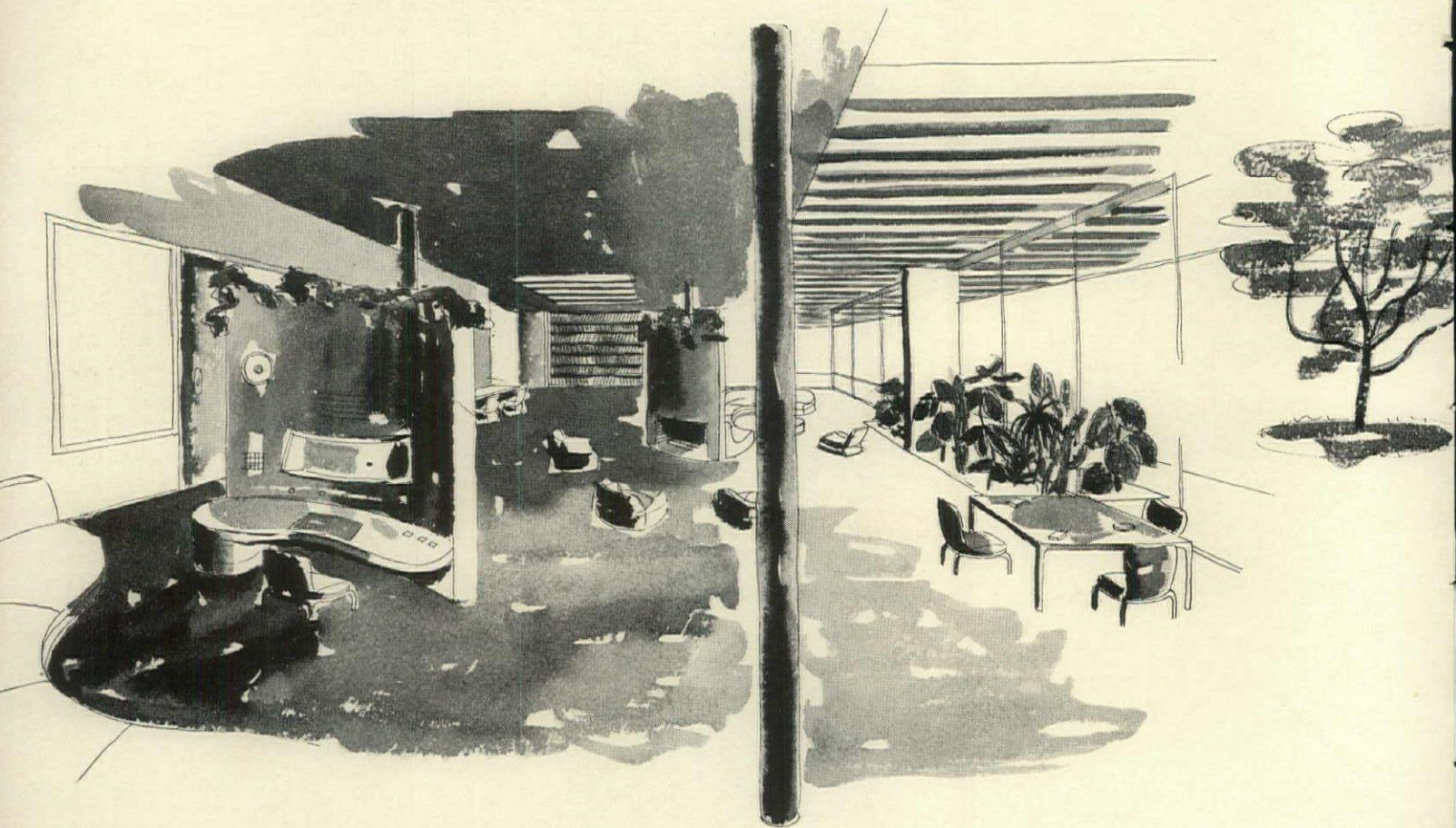
"Roof and underside of overhang covered with membrane of plastic, light metal or treated canvas. No painting necessary since all materials will be refinshed. Warm air generated by cooking-hot water unit to circulate between beams and radiate heat from ceiling. No electric wiring or fixtures will be needed since "black light" generated from points in the utility section will activate specially treated areas of the ceiling to produce light where required. Walls to be 4 ft. wide panels with plastic facing on outside or inside. Inside finish may also be fine wood veneers. Panels are placed in channels in floor and ceiling and snapped in place. Glass panels and screens can be applied in a few minutes wherever desired. Any adult will be able to alter the arrangement of the exterior panels at will—and even change colors with the seasons.



"Combination living and dining space is located on one side of the utility section (plan, right). Sliding panels extend these two activities into the outdoors. All furniture is sectional and based on a 4 ft. module so that layout of rooms can be varied at will. Bedrooms are placed on the other side of the utility section. Children's bedrooms can be combined into large playroom opening on outdoor playspace. Sectional wardrobes based on 4 ft. module are the only separation between rooms, contributing to economy and conversion of rooms to various uses. Snap-on connections on sides hold door frames. Master bedroom opens on private outdoor patio. This patio can be converted into an additional bedroom by simply adding prefabricated panels. Utility section of the house is exactly in the center. Mother can watch the children in indoor and outdoor play areas from the kitchen. A two-car carport is provided alongside the principal entrance."







"My design is for a small house with large space for a Western climate built entirely (with the exception of the foundation and floor) of pressure-molded plastic for a family with an income of \$3,600 to \$4,000. Out of various solutions this most elaborate one seemed the most desirable even though it seems somewhat Utopian—we all know how the impossible of today is taken for granted tomorrow.

"The elimination of the utility room seemed to me plausible. Laundry will be handled either through commercial facilities, or there will be a new type of laundry equipment built into every bathroom and kitchen. Heating will be provided like other utilities through a central system, either for a whole district or for a smaller unit such as a city block.

"Dishwashing and drying must be handled in a new way to save the housewife time and trouble. She must go through entirely too many processes to serve the simplest breakfast: taking all the dishes from the shelves, moving them to the table, serving, cleaning, drying and placing them on the shelf again. Why not make the dishwasher a storage cabinet so that after putting dishes into the machine all work would be done automatically—cleaning, washing, drying and storing?

"Cleaning the various rooms is the housewife's second problem, and I suggest that along the walls, in combination with heating and air conditioning grilles, an automatic vacuum cleaner be included. This, together with air conditioning to reduce the amount of dust coming in from the outside, should help to solve the problem.

"Soundproofing, sound-stimulating, noiseless plumbing, air conditioning, television and built-in radio are all '*condition sine qua non*' in the future house.

"My design is for an entire prefabricated house, including all utilities, piping and wiring. It is planned for a Western climate, and the assumed material is laminated weather- and fire-resisting plywood, pressed in large units so that all wall and partition sections could measure up to 8 by 12 ft. The bedroom portion is isolated from the living rooms by a sheltered, open area used for outdoor dining and children's play. Its capacity may be increased by adding bedrooms as necessary."

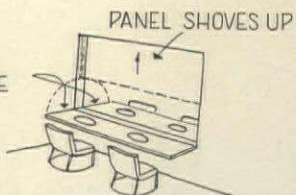
#### PAUL LASZLO



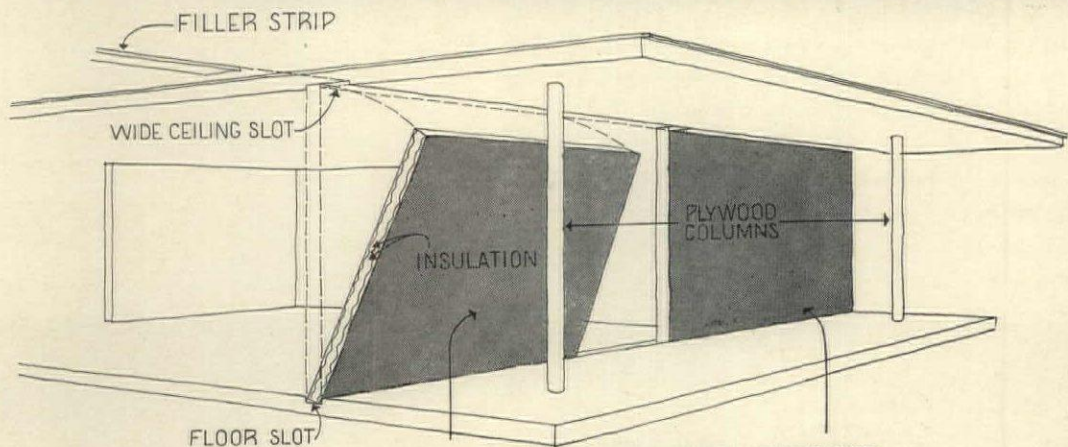
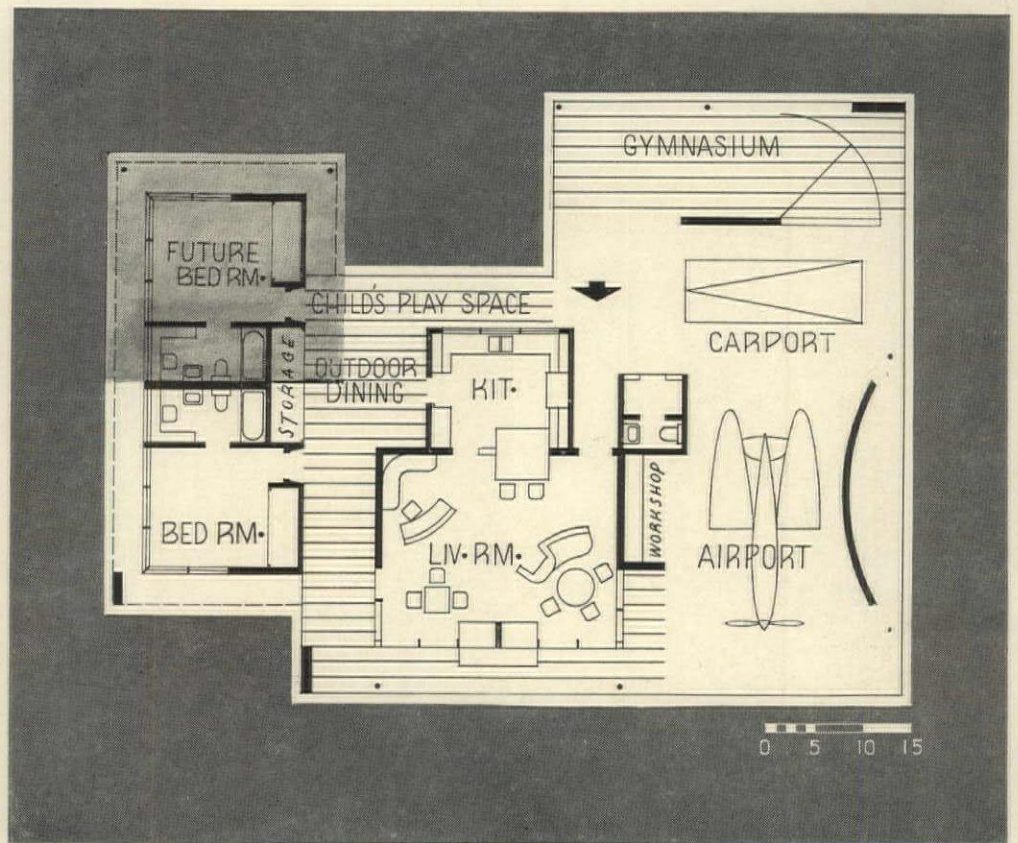
Designer, Beverly Hills, Calif., he was born in Hungary in 1900 and studied in various European countries, operating his own offices in Vienna and Stuttgart before coming to the U. S. in 1936. Since arriving here he has worked principally with stores, houses and furniture.



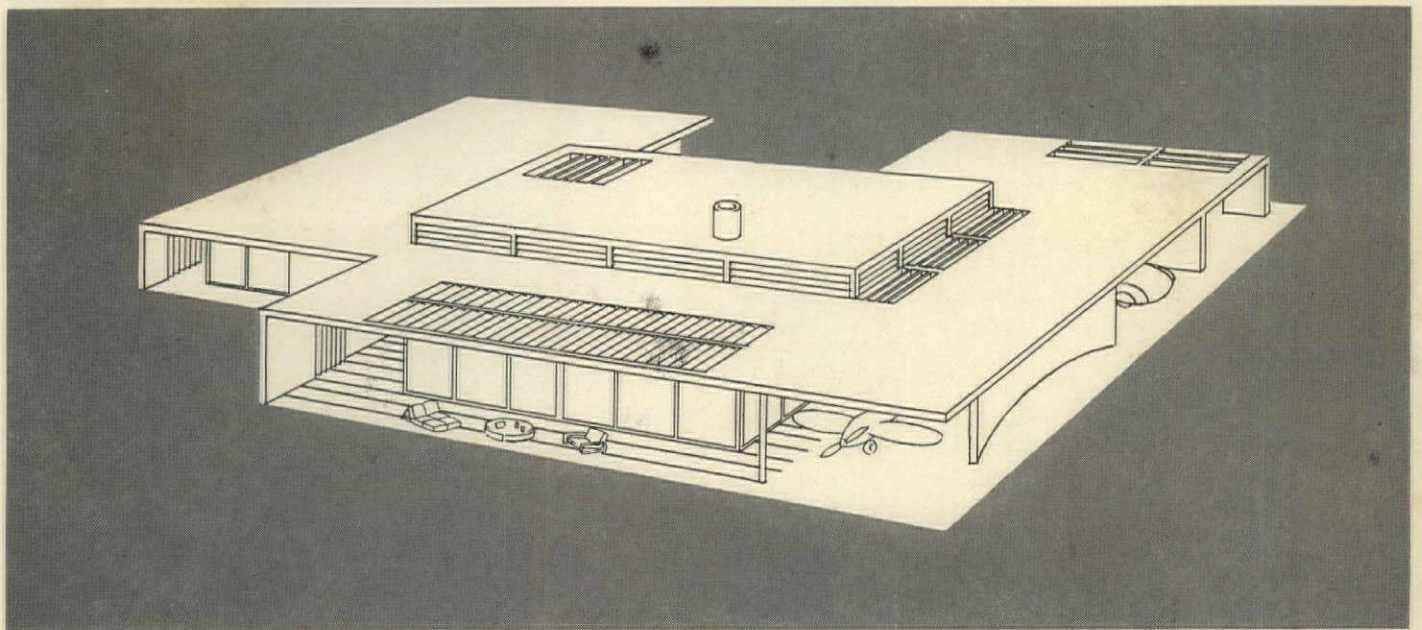
WALL PANELS  
HINGE DOWN  
FORMING TABLE



OPENING FROM KITCHEN  
TO L.R. SO SERVING CAN  
BE DONE WITHOUT  
LEAVING THE KITCHEN



REMOVABLE WALL SECTIONS SET IN THE FLOOR  
SLOT AND RAISED INTO MATCHING WIDE GROOVE  
IN CEILING—FILLER STRIP SCREWED INTO  
CEILING SLOT TO HOLD WALL SECTIONS  
RIGIDLY IN PLACE





MARIO CORBETT

## THE IDEA

"A light metal prefabricated small house, using techniques already developed for such materials.

## WHY METAL?

"Because light metal is durable, will be available in huge quantities, and because its fabrication in any shape is simple. If left shiny, the exterior metal is an excellent insulator. Metal craftsmen are now far more numerous than carpenters.

## THE INFERENCE:

"The aircraft industry, geared for stupendous war production, may face the need for conversion, in part, after the war. For mass-producing small houses it has the equipment, craftsmen and strategic locations required. It could even use its giant transport planes for distribution.

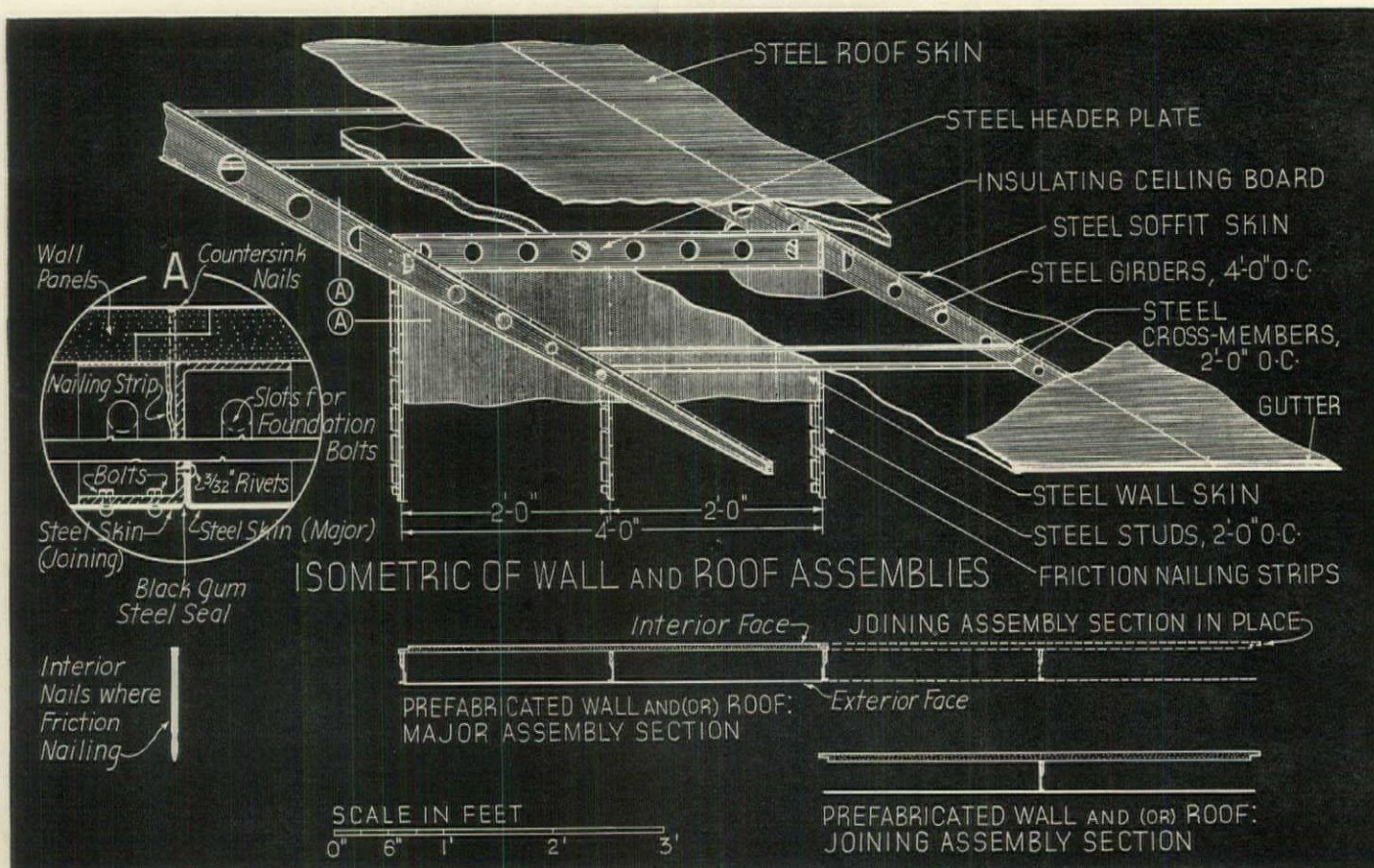
## THE CONSTRUCTION:

"A stressed-skin design. Lightweight steel joists on a concrete foundation. Wall assemblies have slotted sills (detail A), and are thus plumbed up and bolted securely in line. Wall sections alternate major and joining sections as shown below. The joining assemblies are sealed and bolted to the major assemblies. For dismantling or expansion of the house, panels are unbolted. Interior panels would be of various materials and finishes, with provision for friction nailing or clamping.

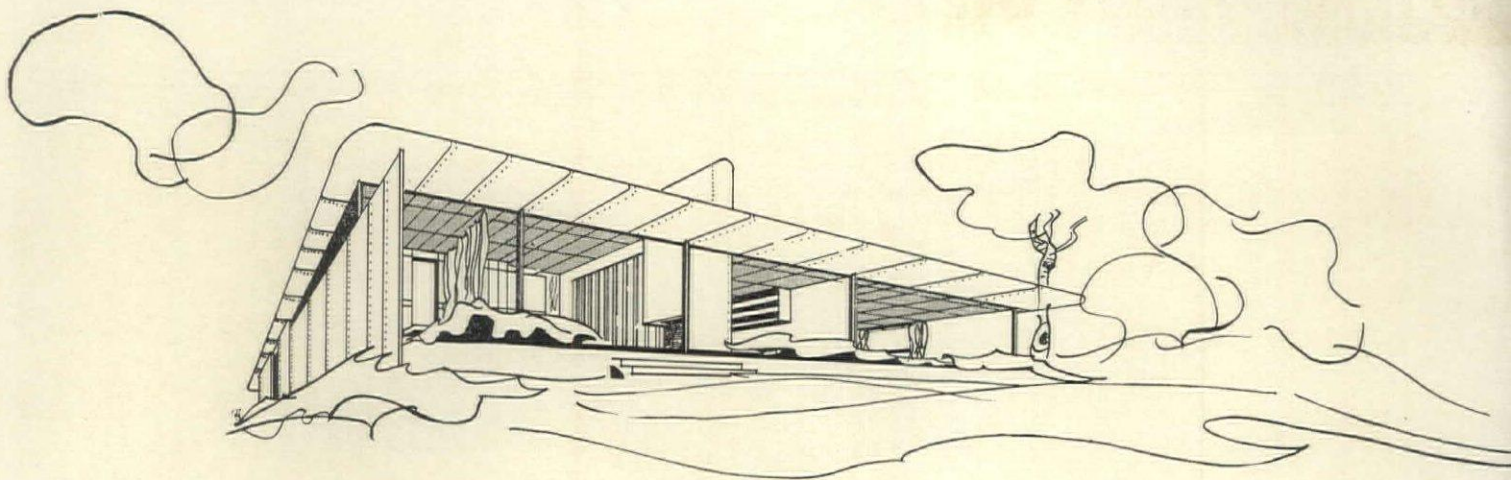
"Roof assemblies line with those of the walls and are locked at the ridges. Ceiling panels are similar in their fastening to the interior wall panels."



His architectural career began at the age of 13, when he went to work as his father's office boy. He studied for a time in the California School of Fine Arts, until he won a competition for a traveling fellowship in Europe. After working in offices in New York and California, he received his license in 1932 and opened an office in San Francisco. His most recent activity, camouflage work for the Douglas plant, introduced him to airplane fabrication and furnished the inspiration for the project shown here.



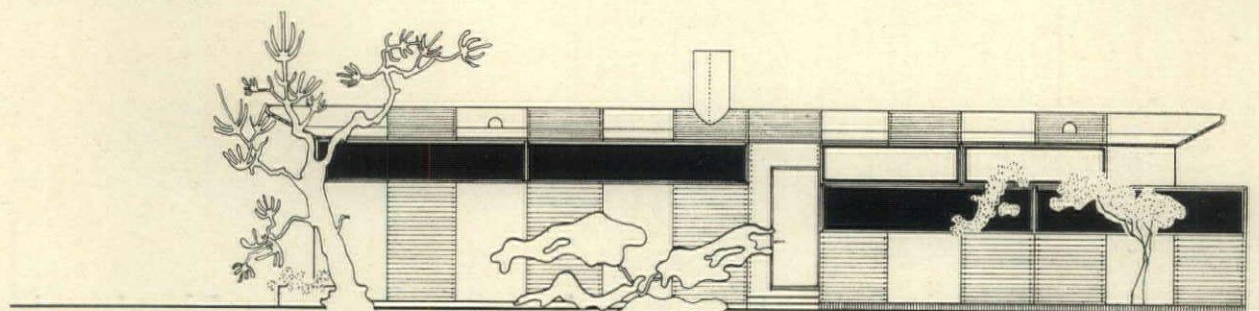
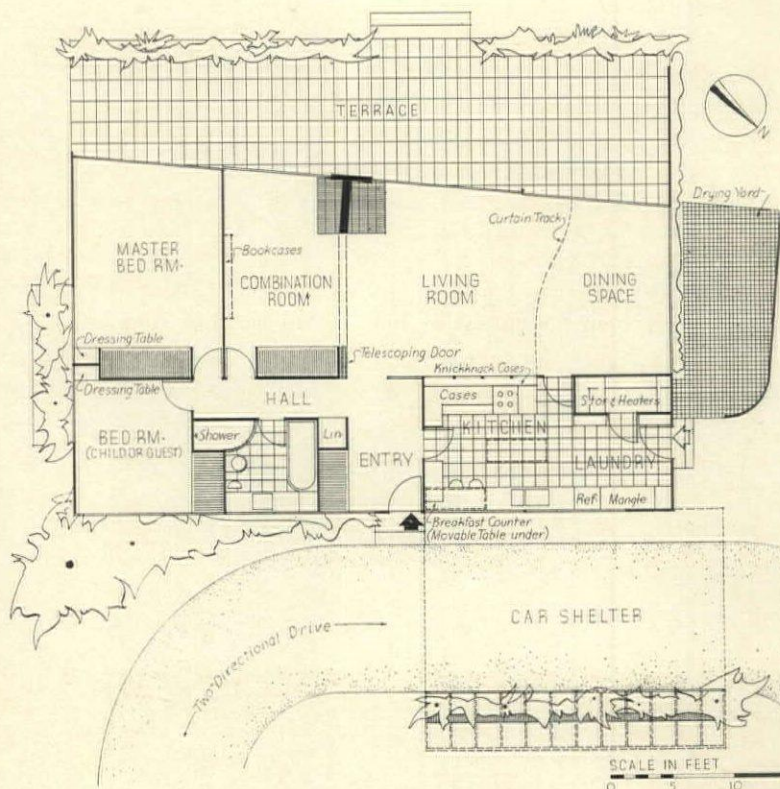




"In general, the plan shown is divided into four longitudinal bays of 12 feet. Each bay, in turn, is divided into three 4-foot alternating major and joining sections. Transverse walls are likewise divided into 4-foot sections. As the studs are on 2-foot centers, it is not necessary that right angle connections be made at 4-foot intervals.

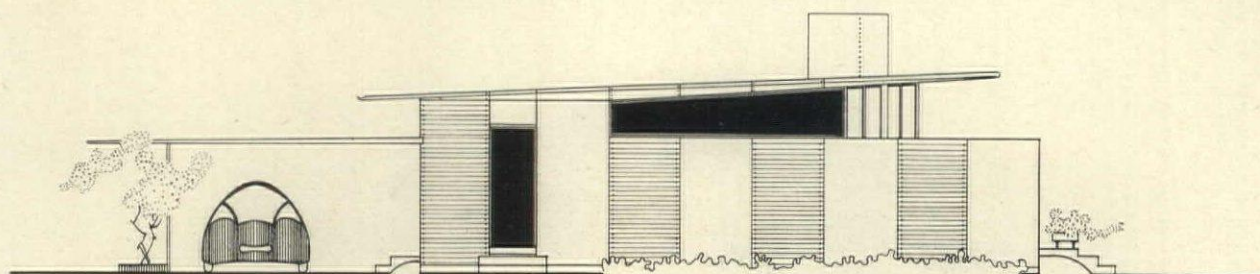
"The car shelter spans a two-way drive, and gives access to both main and service entries. There are four parts to the main living area: terrace, living room, dining space and den; these are joined or separated as desired. The services, kitchen, heater and laundry, are grouped into a compact rectangular unit.

"The plan is not presented as a standard, but merely to show a sample assembly of prefabricated units and equipment."



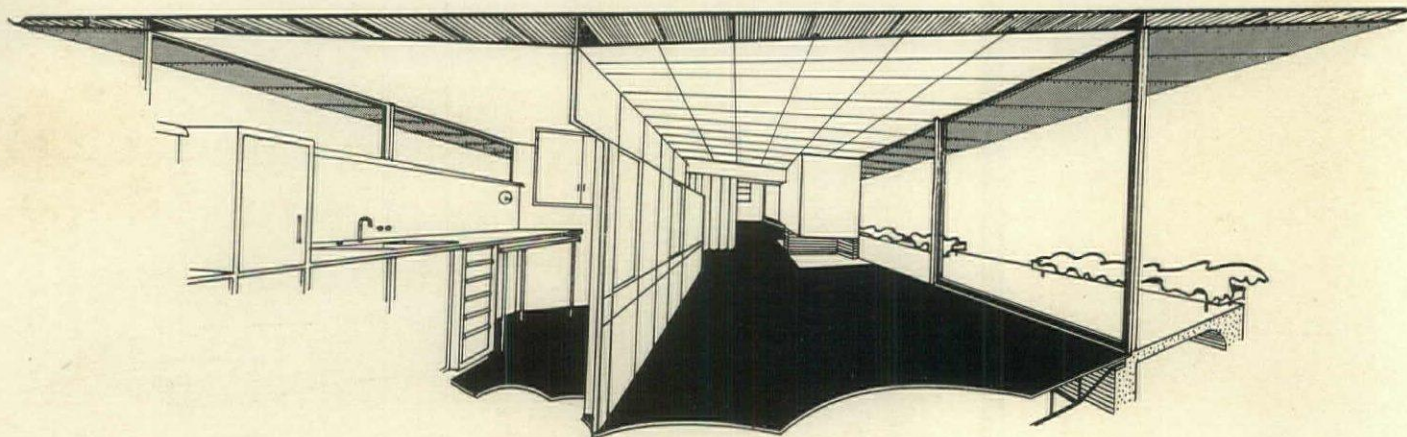
FRONT ELEVATION

SCALE IN FEET  
0 5 10 15

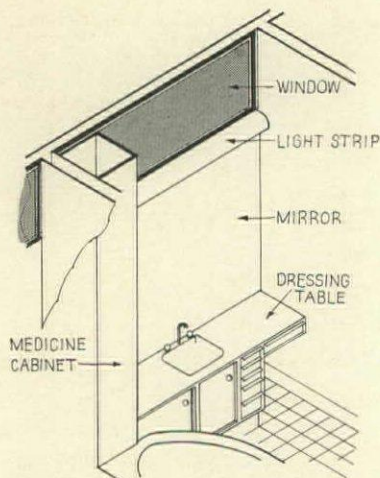
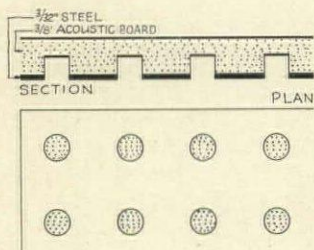


SIDE ELEVATION

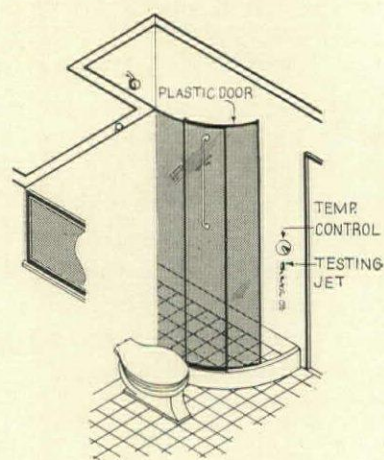




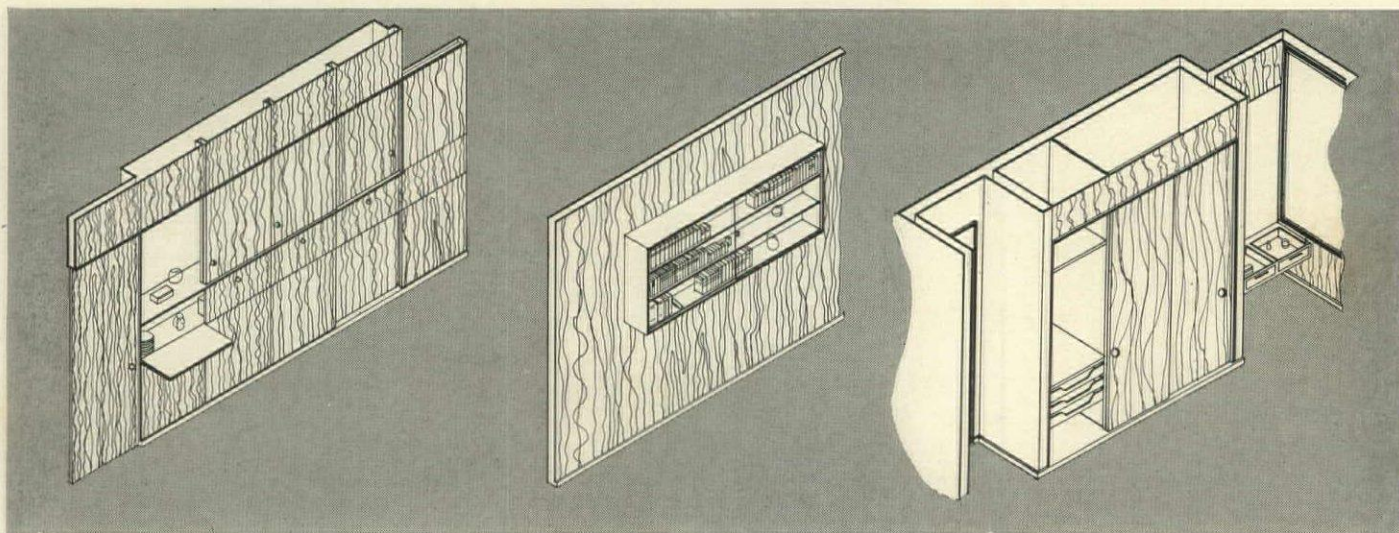
Some of the more interesting special features of the house are illustrated on this page. The perspective section above, taken through the service and living areas, shows the roof construction of stressed metal sheets on light structural members. The drawing at the right offers the suggestion of a metal and acoustic board sandwich for ceiling panels. The metal has holes punched at intervals, so that the ceiling combines lightweight and sound-deadening properties with strength. In the bathroom, standard fixtures have been arranged in a compact space with ample storage facilities. Some of the standardized storage units are shown below.



High window and mirror wall over dressing table. Continuous fluorescent lighting strip over mirror. Medicine cabinet extends to the ceiling.



Curved plastic shower door shown partly open. Temperature control and testing jet at opening. W. C. tank concealed.



Wood veneer wall. Insides of cases sprayed enamel. Dropleaf and sliding cabinet doors.

Hanging book cases, attached to wood veneer wall. Sliding glass doors.

Closets with interchangeable fittings. Dressing table has mirror up to door height.





State Armories, Framingham, Mass.  
Equipped with 54 Ro-Way Doors. L.  
Santucci, Arlington, Mass. Contractors.

# MODERN AS TODAY'S WEAPONS OF WARFARE!

## *That's why* **Rō-Ways Guard so Many Doorways**

### **FOR THE ARMED SERVICES AND ESSENTIAL WAR INDUSTRIES**

Everything about the Ro-Way Overhead Type Door dates it "1942." In streamline design, in ease and smoothness of action, and in patented improvements that give extra security and extra service, you will find Ro-Way Doors as modern as the latest weapons of war. You will better understand the widespread choice of Ro-Way Overhead Type Doors when you examine these exclusive improvements:

**"Crow's Foot" Outer Bearing Support**—Rigidly holds the chain sheave wheel in permanent alignment. No twist...no sag to cause friction.

**"Zip-Lock" Adjustment**—Used on Ro-Way Doors having Twin Torsion Spring Power. Permits instant easy adjustment of spring tension.

**"Tailor Made" Springs**—Each spring is individually made for the Ro-Way Door on which it is used. Each is power-metered to the weight of the door.

**Track Rollers**—Made on our own specially-designed machines. All Rollers have "double thick" wearing tread, and full ball bearing (7 to each roller.)

**New Friction-Reducing Track**—Track is formed so rollers ride well away from the track side wall, giving extra clearance and easier operation. This track design also gives extra strength and rigidity. No counter-sunk holes in track—no flat head stove bolts used.

**Rust-proof Hardware**—All Parkerized and Painted *after* fabrication.

Thus Ro-Way engineering is never satisfied. Just as today's weapons of war are built to outstrike those of yesterday, so Ro-Way Doors are built to outserve all that have gone before.

*Write for Ro-Way's 72-page "Time-saving Specification Book"  
for Architects. Please attach professional card or letterhead.*

**ROWE MANUFACTURING CO.** 953 Holton Street  
Galesburg, Ill., U.S.A.

### **Today Ro-Way Doors are Serving America in**

Naval Depots  
Air Bases  
Navy Proving Grounds  
Munition Factories  
Torpedo Stations  
Coast Guard Bases  
Armories  
U.S.O. Buildings  
Ordnance Plants  
Cantonment Camps  
Navy Yards  
Bomber Plants  
Submarine Bases  
Marine Bases  
Army Proving Grounds

# Rō-Way

## OVERHEAD TYPE DOORS

*"There's a Ro-Way for every Door way!"*



# *...For the FUTURE-*

★  
★  
★  
**O**

UT OF THIS WAR is emerging a great new industry — the prefabricated manufacture of homes — with Houston as headquarters.

Homes to be shipped from the Port of Houston to all ports of the world; Homes to be sent by barge to Omaha, Minneapolis, Corpus Christi, Mobile, Pittsburgh, Chicago, Buffalo and intermediate points; Homes to be shipped to the Great Southwest by truck and railroad.

Homes engineered and designed to produce quality never before possible, conveniences never before thought of, comforts hitherto unknown, at PRICES EVERYBODY CAN AFFORD are now made possible by remarkable new materials and production methods.

A complete "home package" from footings to furniture — one sale, one loan, one responsibility. Homes that can be thought of as chattels — as well as fixtures to real estate — for these homes can be moved from place to place without material loss and at little expense.

Homes designed to require little maintenance; designed for year-round temperature and humidity control; engineered for reduction of raucous noises. Decorated to please the eye, soothe the nerves; lighted to avoid eyestrain; planned for spacious privacy. Examples: shower temperatures will stay put; ovens at proper height for convenience with transparent door; sinks will handle refuse as well as wash, sterilize and dry dishes; corners rounded for easy cleaning.

Experience counts! For over a quarter-century we have been manufacturing homes at our Houston factory. We have over ten thousand successful samples in the field.

Right now we are busy with War Production Contracts — and we are devoting everything we have to the winning of the war. After it is won, we will devote all our efforts to this Great New Industry with Headquarters at Houston.

***Buy a home in the peace to follow  
with the Bonds you buy today.***

## **HOUSTON** *Ready-Cut* **HOUSE CO.**

*25 years Prefabricating Houses*

POLK AVENUE

HOUSTON, TEXAS





From a truckload of panels—to putting up the wall sections—to roof assembly—in one hour or less. Each crew specializes on one operation.



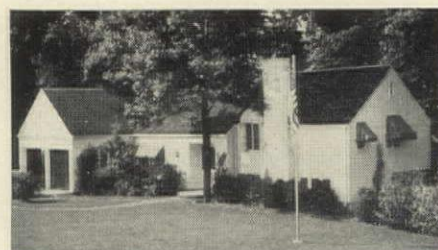
TRENTON, N. J. . . \$2,500, 4-room Homasote Home developed before the war to be built individually in 6 days.



EWING TOWNSHIP, N. J. . . \$5,800 Homasote Home with four bedrooms and two baths, garage, playroom and laundry. Exterior of shingles.



INDIANAPOLIS, IND. . . \$11,500 Homasote Home. Exterior of white brick. Homasote sheathing can be used under any exterior material—or it can be Sand-Finished to look like stucco without ever cracking or blooming.



YARLEY, PA. . . This 14-room Homasote Home, located on a sloping site, is built on three levels. Costing \$15,000 by Homasote Precision-Built Construction, it would have cost \$18,000 with ordinary methods, taken three times as long to build.

## FROM FLOORING TO ROOF...

# A matter of minutes

In Portsmouth, Virginia—5,000 Homasote Homes for Navy Yard workers and their families are now going up—at the rate of 60 or more per 10-hour working day. That's one every 10 minutes!

Tomorrow—all over the country—architect-designed Homasote Homes for large-scale realty developments, employee housing and slum clearance projects may be built even faster.

Yes—faster than one every 10 minutes! In Portsmouth, Barrett & Hilp, Contractors of San Francisco—who are building the project—are prepared to raise the output of the pre-fabricating plant set up near the site from 60 to 112 houses a day—any time the site-clearing operations catch up with them.

The Portsmouth houses are quality homes—doubly-insulated, machine-perfect, with one to three bedrooms. They can be dismantled in three hours, re-erected in another three—with a total loss in materials of only \$22.

The scope, speed and quality of the Portsmouth project are made possible by two factors:

(1) Homasote weatherproof insulating and building board—twice as strong, by independent laboratory tests, as other boards—

made in panels as large as 8' x 14', 3½ times the size of other boards.

(2) Homasote Precision-Built Method of Construction—based on large panels to save time and labor, and eliminate unsightly batten strips and wall joints—proved in \$6,000,000 worth of architect-designed private homes—built by local labor with standard materials before the present emergency. (See examples at left.) This has been supplemented by \$24,000,000 of war housing.

When the normal demand for homes, now held in check by wartime necessity, is released, Homasote Precision-Built Construction will produce the homes you design at new low costs—opening up to architects markets hitherto untapped.

**ARCHITECTS . . .** Any architect's design is adaptable to Homasote Precision-Built Construction with no change greater than two inches in a single overall dimension. Homasote Company charts and reference tables save detailing time . . . All Homasote Homes can be built demountable—for removal to another site, or for changes in size to suit the family's changing needs . . . Write for complete details. HOMASOTE COMPANY, Trenton, N. J.

# HOMASOTE Precision-Built HOMES



# Gunnison Homes

A NATIONAL INSTITUTION



*Typical 4 room Gunnison Miracle Home occupied by war workers in many Defense Areas.*

## FACTS OF LEADERSHIP

- Gunnison Homes have the highest degree of prefabrication including factory finishing of all exterior and interior surfaces, hanging all doors, windows, hardware, etc.
- Largest, most highly mechanized Plant in Prefabricated Home Industry. Includes most modern milling and plywood facilities.
- Only Company to have every operation on modern timed-flow progressive assembly basis with power conveyors throughout
- Only Company to have its own complete National Dealer Organization and Homes in every state.
- Only Company to have complete range of Homes for largest market — \$3000 to \$10,000. Victory Homes, Miracle Homes, Deluxe Homes.
- First Company in the Industry to emerge from experimental period to commercially successful operations.

### AFTER VICTORY

For the duration of war our production will be entirely absorbed by Government contracts and by our present Dealers in Defense Areas. After victory, we shall rapidly expand our Dealer Organization. If interested, write now for catalog. Excellent opportunity for architects, engineers, builders, realtors, bankers.

GUNNISON HOUSING CORP.

New Albany, Ind.

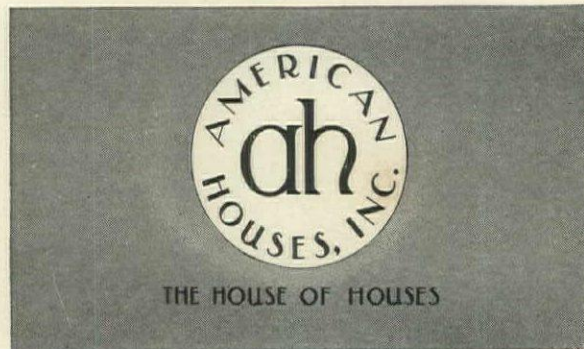
© 1942



*The Green Lumber Company  
of  
Laurel, Mississippi  
announces  
the completion of its 2,500th  
prefabricated dwelling unit  
for  
men in the armed forces  
and workers in America's  
vital war industries*







# *Prefabrication* is too small a word

Call this approach to building merely *prefabrication* and only the beginning of the story has been told.

Since the possibilities of this type of building were first recognized, the hope of builders and home owners alike has been that some plan would be developed that could, and *would*, on a national basis, give people the homes they want—in a shorter time—at lower cost.

American Houses, Inc., *has* developed such a plan. It is a coordinated system of nation-wide building which, through standardization of materials, centralization of control and mass buying, offers the greatest possible values to builders and home owners.

It is a method of operation so far-reaching, so multiple in its services to

the building profession and industrial concerns, so extensive in its *creation of sound markets* for BUILDING MONEY—that the word “prefabrication” simply isn’t adequate.

No *one* single word, either, can describe the continuous testing done by American Houses, Inc. in its own research laboratory to *prove* quality products for specific jobs—or the sustained efforts devoted to creating new types of construction to achieve *flexibility*, more beauty in design, and greater utilization of space.

Whatever your interest in the building profession, you owe it to yourself to learn the complete story of American Houses, Inc. Every individual who has adopted this building method has recognized its soundness, and profited. Your inquiries are invited.

**AMERICAN HOUSES, INC.**

“THE HOUSE OF HOUSES”

**570 LEXINGTON AVENUE, NEW YORK**



---

# *Licenseses*

## profit through American Houses Plan

By adopting the American Houses coordinated plan, manufacturing companies qualified to render this service can profit in several different ways.

Particularly is this true today, when war emergencies have brought prefabricated housing more than ever to the front.

The American Houses plan makes it possible for licensee companies to furnish complete prefabricated parts rather than individual

building materials of conventional form. Production of prefabricated parts, according to American Houses plan, results in economies both in production and distribution; and these savings can be passed on to the builder and, in turn, to the home owner.

Thus the home owner gets *more house per dollar spent*. Good will creates more sales for the builder. And licensee companies continue to profit through repetitive sales of the same type and kind of prefabricated parts.

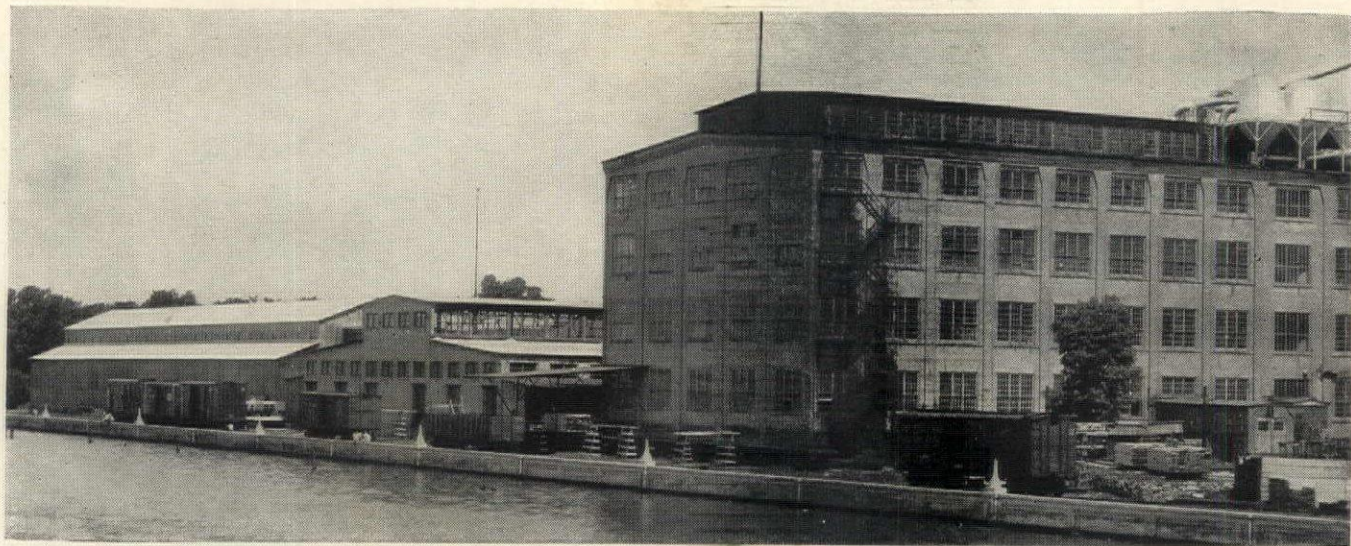
*Pictured below are plants of three licensee companies of American Houses, Inc.*



NEW ENGLAND HOUSES, INC., Concord, New Hampshire



SOUTHWEST AMERICAN HOUSES, INC., Houston, Texas

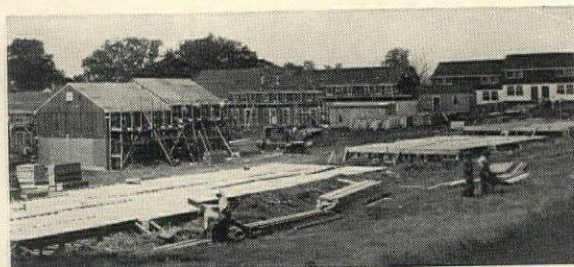


PAINE LUMBER CO. LTD., Oshkosh, Wisc., manufacturing facilities of C. R. RUDINGER, INC., South Kearny, N. J.



# Builders choose American Houses Plan

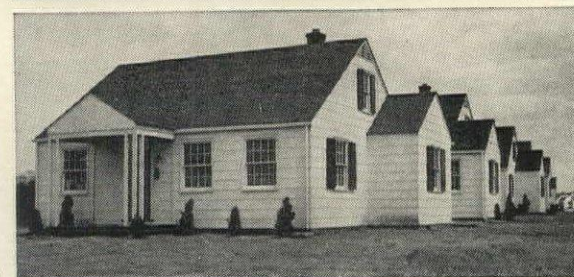
1. *U. S. Navy Barracks*  
ALLEN J. SAVILLE, Inc. *Richmond, Va.*
2. ARTHUR OLSON, Inc. *Glenbrook, Conn.*
3. CHESTER S. PATTEN *Melrose, Mass.*
4. *Demountable Apartment*  
IRONS & REYNOLDS, Inc. *New York, N.Y.*
5. McCOWEN-ALDRED COMPANY  
*Macon and Statesboro, Ga.*
6. CHARLES T. WILLS, Inc. *New York, N. Y.*
7. DAWSON ENGINEERING COMPANY  
*Charleston, S. C.*
8. *Demountable Unit*  
F. A. MacSHEFFRAY CO. *Boston, Mass.*
9. G. WALTER TOVELL, Inc. *Baltimore, Md.*



4



5



6



7



8



9



1



Photo:  
Rodney Morgan



3

Photo:  
Rodney Morgan



# Architects use American Houses Plan

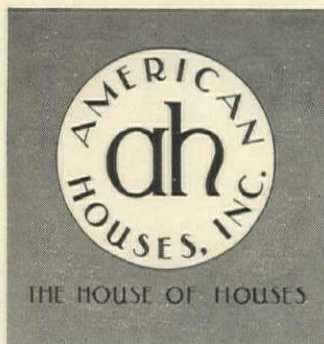
MARSH & SAXELBYE  
Jacksonville, Fla.

HUTCHINS & FRENCH  
Boston, Mass.

MacEWEN & FERGUSON  
Macon, Georgia

HARBACH & KIDENEY  
Buffalo, N.Y.

TODD TIBBALS & ASSOCIATES  
Columbus, Ohio



JOHN J. ROWLAND  
Kinston, N. C.

PENDLETON S. CLARK  
Lynchburg, Va.

H. A. HAYDEN  
Bristol, Conn.

HOLDEN, McLAUGHLIN  
& ASSOCIATES  
Consulting Architects, New York, N.Y.

These representative architects have used the building method of American Houses, Inc. This method permits a merging of creative ideas with sound principles of construction. It allows architects to use a coordinated

system and to plan in terms of fabricated parts, chassis, group combinations, accessory elements and masses, rather than making lines with a pencil and asking builders to imitate their sketch designs in stone or wood.

## AMERICAN HOUSES, INC.

570 LEXINGTON AVENUE, NEW YORK

### Standard Houses, Inc.

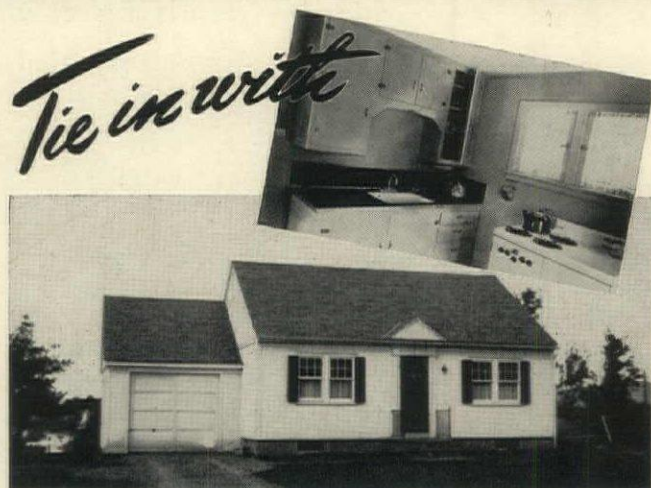
225 BROADWAY, NEW YORK, N. Y.

*Prefabricators Since 1936*

The experienced management of STANDARD HOUSES, Inc. has built several hundred houses for the United States Government during 1941-2, and is currently building several hundred more.

During the present emergency, STANDARD HOUSES, Inc. is prepared

- ★ To build 10 union-made houses per day.
- ★ To raise the mechanical living standards of low income groups.
- ★ To produce the house plan for low cost living.
- ★ To produce the site plan for community living.
- ★ To aid public morale with comprehensive planning.



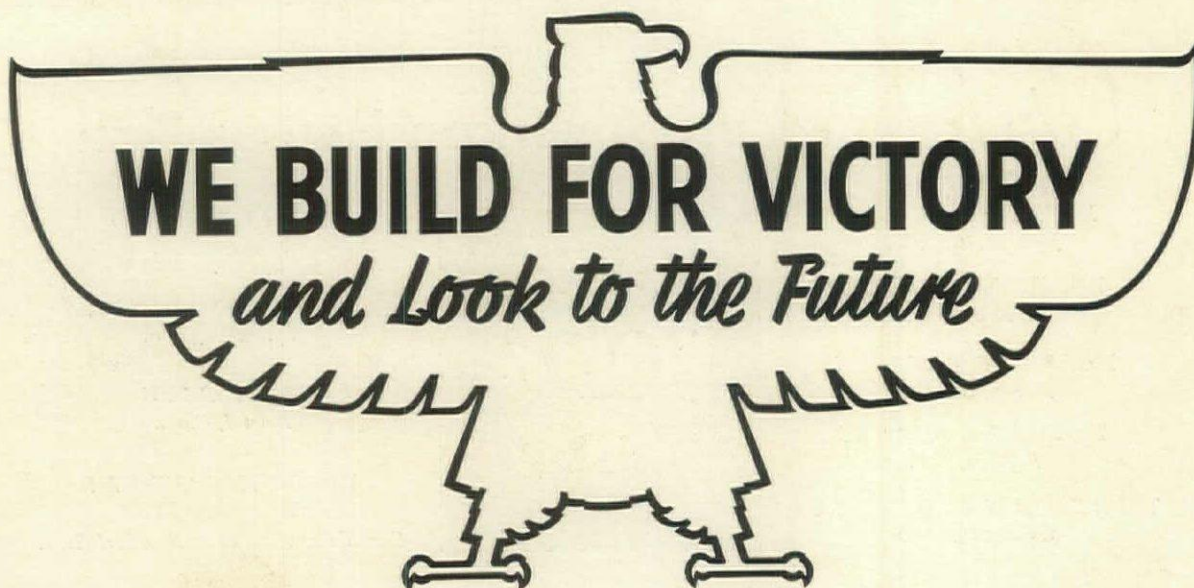
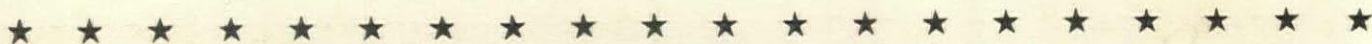
## PREFABRICATION

Now offers unlimited possibilities to help relieve the critical housing problem so vital to the successful continuation of the war effort and at the same time establishes you for post war building. The Ford System has proven one of the most practical and economical methods of complete prefabrication in use today. Now you can benefit by our seven years of successful experience, by using our detailed blueprints and instructional service which includes Garages, Cottages, Poultry Houses and our new Victory Home selling for less than \$500. We will be glad to help you start production.

Write for detailed information.

IVON R. FORD LUMBER CO. McDonough,  
New York



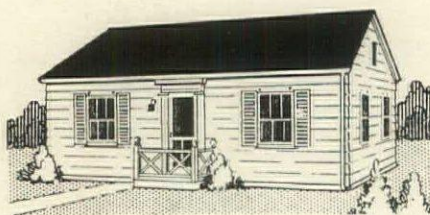


In 1919 when the Southern Mill & Manufacturing Company was established our "plans for the future" were soundly based on the determination to provide in STURDYBUILT HOMES, pre-fabricated, actually demountable houses of modern design and highest quality construction and materials.

Though wartime production has presented new problems requiring new decisions . . . new and faster production methods, without sacrifice of quality . . . new men for new jobs . . . and increased output, our "plans for the future" have enabled us to meet the unusual demands on our organization. Every individual in each of our three plants is "building for victory."

Today, while we are serv-

ing the Government first, our facilities are still at the disposal of industry, architects, builders and contractors. Not only are we busy with the present . . . but we are planning for the future. As we "build for victory" and meet new problems, will come experiences which will be of value to builders, to home owners and to the American Way of Living . . . when our present job is done.



#### -STURDYBILT

Sturdybilt for city or rural homes, housing projects or industrial application is the economical choice of pre-fabricated and demountable construction. Sturdybilt provides attractive, comfortable and conveniently arranged living quarters. Individualized designs provide a type and size to fill any specific housing requirement from one to five or more rooms. Larger units for warehouses, recreation halls and other uses are also available.



# SOUTHERN MILL & MANUFACTURING CO.

Wichita, Kansas

TULSA, OKLAHOMA

Longview, Texas





## MODERN PLANT OF INDIANA DEMOUNTABLE HOUSING, INC.

Sharing our part of the responsibility of providing comfortable, convenient, and livable homes for those engaged in producing necessary materials of war.

Organized with ample capacity to prefabricate twelve homes every twenty-four hours. Conceived and planned to provide for more temporary wartime housing or the demand for permanent post war homes.

The need for small demountable farm buildings has not been overlooked in our prefabrication program.

Backed by the experience of more than 50 years service to the construction industry.

### INDIANA DEMOUNTABLE HOUSING, INC.

A Subsidiary of

### THE WILKINSON COMPANY, INC.

General Offices —  
907 E. Michigan St.,  
Indianapolis, Indiana

Eastern Sales Office —  
401 Union Trust Bldg.,  
Washington, D. C.

Manufacturing Plant —  
Martinsville, Ind.

*Shown below is a street scene adjacent to one of our country's defense plants where a large number of homes fabricated in the plant of the Indiana Demountable Housing, Inc. are being erected.*





LOW COST HOMES  
FOR "TOMORROW"



OUT of the war will come freedom, better government for all nations and advancements in science, transportation and housing. America's war production activities are serving as the proving grounds for progress — progress in methods, materials and a more efficient use of manpower — progress that will win the war.

We are a part of the housing proving ground and are learning how to conserve time, men and materials in the construction of prefabricated houses for war workers. Today we are building better structures faster than ever before.

Combining site and factory prefabrication, General Fabricators, Inc. have developed a panel system that now makes possible a wide variety of interior and exterior designs. Lower fabricating costs and improved assembly methods permit the use of highest quality materials. All of our houses are built with Masonite hardboard and blanket insulation products.

Right now our job is to help provide adequate housing for war workers, but, we too, are preparing for the future. When Victory comes to America, General Fabricators, Inc. will be ready to build attractive prefabricated homes. Today's war housing experience is showing us how to build low cost homes for "tomorrow."

**GENERAL FABRICATORS, INC.**  
ATTICA, INDIANA



*Revolutionary  
Design*

WAR-USE BUILDINGS  
STANDARD SECTIONS  
RAPID ASSEMBLY  
DEMOUNTABLE

Foremost in our minds in developing this  
MULTIPLE PURPOSE BUILDING were  
STANDARDIZATION OF SECTIONS,  
SIMPLICITY AND SPEED OF ERECTION,  
SALVAGEABILITY, ADAPTABILITY,  
MINIMUM APPLICATION OF CRITICAL MATERIALS  
*and last, but by no means least*  
LIVABILITY AND ALL-WEATHER COMFORT.

DEVELOPED FOR

Barracks, Dormitories, War Apartments,  
Mess Halls, Hospitals, Warehouses, Industrial  
Shops, Stores, Schools and Dwelling Units.

TIME OF ERECTION

Eight unskilled laborers can erect a shelter  
complete for thirty-six men in less than four  
hours. Supervision is available if desired.

INSULATION

All wall and roof sections are adequately  
insulated, insuring livability and all-weather  
comfort in any part of the world.

SALVAGEABILITY

This unit can be demounted and erected

elsewhere with ease as it is practically 100%  
salvageable, meeting current and post-war needs.

STANDARDIZED SECTIONS

Simple in design, yet sections are complete  
with interior and exterior finish, including  
paint. Electrical wiring is provided for  
surface mounting. Units are constructed so  
that the size of the building can be adapted  
to requirements.

EXPORT USE

These units are available for use in any  
climate, and the low shipping cube makes  
them economical and practical in the Arctic  
or on the Equator.

LET'S TALK OVER YOUR WAR-USE BUILDING PROBLEM

Our Engineering Staff will be glad to cooperate. Our experience includes  
prefabricated units for Over-seas bases and domestic housing for the N.H.A.

CLINTON G. BUSH LUMBER CORPORATION

ENGINEERING & CONTRACTING DIVISION

EXECUTIVE OFFICES

370 Lexington Avenue  
New York, N.Y.

Prefabricators since 1933

MANUFACTURING PLANTS

Brooklyn, New York  
Groton, Connecticut

U. S. GOVERNMENT APPROVED PREFABRICATORS & ERECTORS



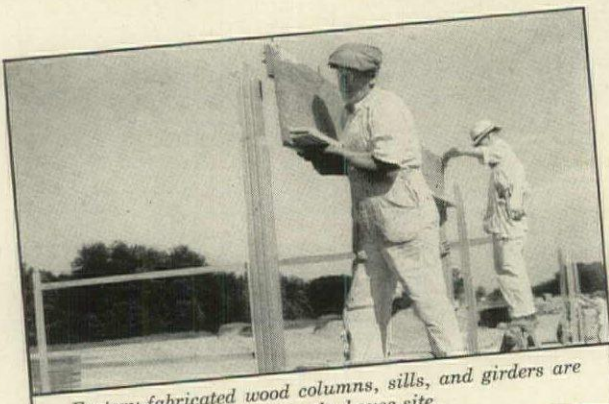
# TODAY'S CEMESTO HOMES FORESHADOW



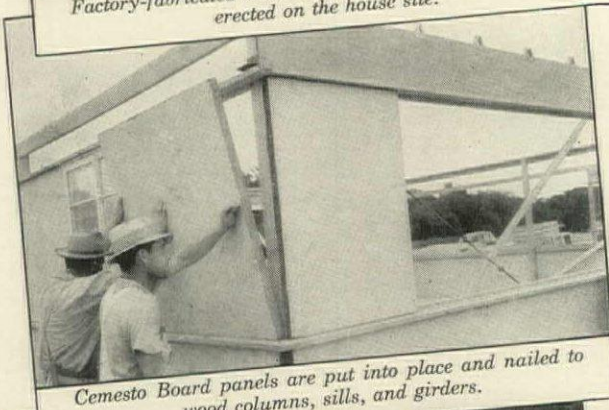
*Only 35 man-hours of labor were required to assemble this house—foundation, walls, and roof. Contains 4½ rooms, measures 24 by 28 feet.*



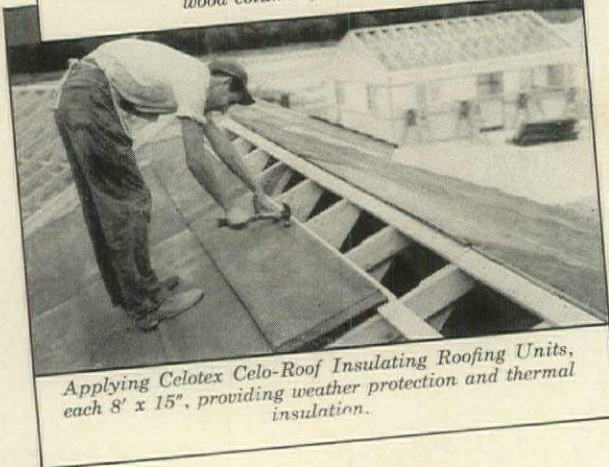
*Comfort and pleasant living are apparent in every room of the Cesto House. Occupants thoroughly enjoy its convenience.*



*Factory-fabricated wood columns, sills, and girders are erected on the house site.*



*Cesto Board panels are put into place and nailed to wood columns, sills, and girders.*



*Applying Celotex Celo-Roof Insulating Roofing Units, each 8' x 15", providing weather protection and thermal insulation.*

## Livability, Economy, By 1000 Homes

The Cesto House is unique. It employs a new method of construction and two extraordinary new building materials—Cesto Board for the exterior and interior walls and Celo-Roof for the roof.

UPWARDS of two and one-half million dollars were expended to produce and develop the first completely acceptable house. The particular structural design used was perfected by the John B. Pierce Foundation of New York, a non-profit organization which has devoted sixteen years to the study and development of low-cost housing.

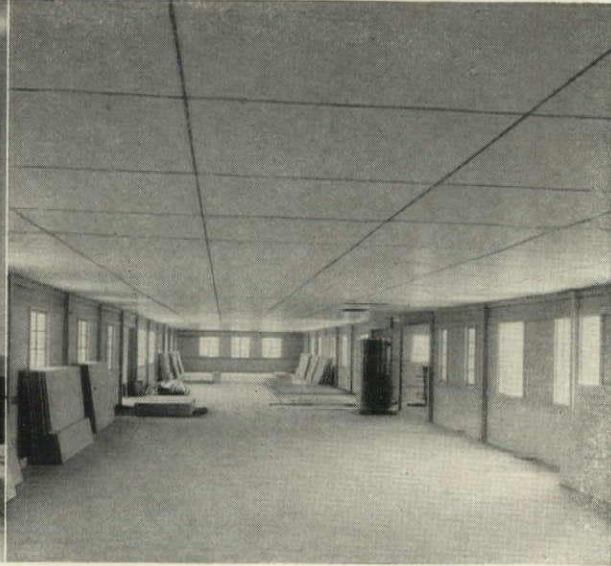
These houses employ the well-known principle of curtain wall construction, often used in industrial buildings and skyscrapers. They are engineered for mass production, with wall and roof materials factory-made to exact size and delivered



# FOR WAR WORKERS THE HOUSE OF 194X



*Dormitories like these each house 60 war workers. Of demountable construction, they can be removed and rebuilt.*



*See how commodious, how light and clean-looking the dormitory interior is! Room partitions are still to be installed.*

## Speed of Erection Proved Already Built and Occupied

to the building site. A field shop on the job provides for carpentry and the assembly of the necessary units.

A single thickness of Cemesto Board replaces the eight or ten separately applied layers, such as sheathing, building paper, insulation, lath, multiple coats of plaster, wallpaper, and paint employed in conventional wall construction.

Cemesto wall units consist of a cane fibre insulation board core, sealed with a special bitustatic compound between two layers of a weather-, fire-, and wear-resistant combination of asbestos and cement.

Applying the same materials and construction methods, large dormitories have been erected in various war industry centers to accommodate war workers with comfortable sleeping quarters. Barracks can be built in the same way.

Because these buildings go up fast—because they include the good appearance and comfort features which make for pride and contentment—and because their cost is low—they are playing a major role in wartime housing. For the same reasons, Celotex believes that the Cemesto House will wield a strong influence on the pattern of the "House of 194X"! Write for your copy of our illustrated booklet giving the complete story of the Cemesto House!



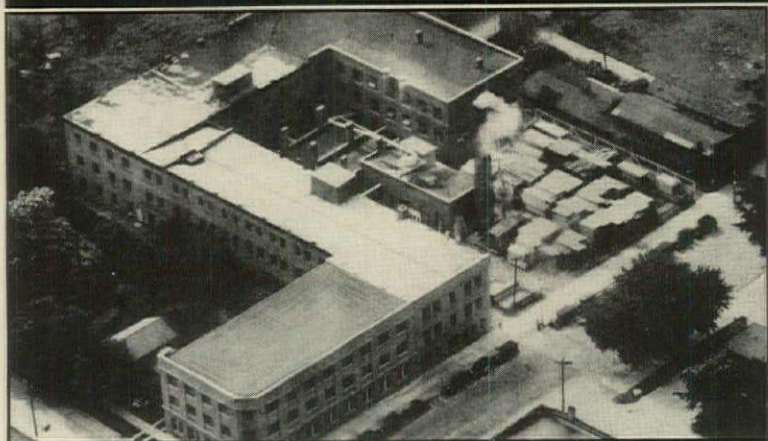
*The word Celotex is a brand name identifying a group of products marketed by The Celotex Corporation*

**THE CELOTEX CORPORATION • CHICAGO**



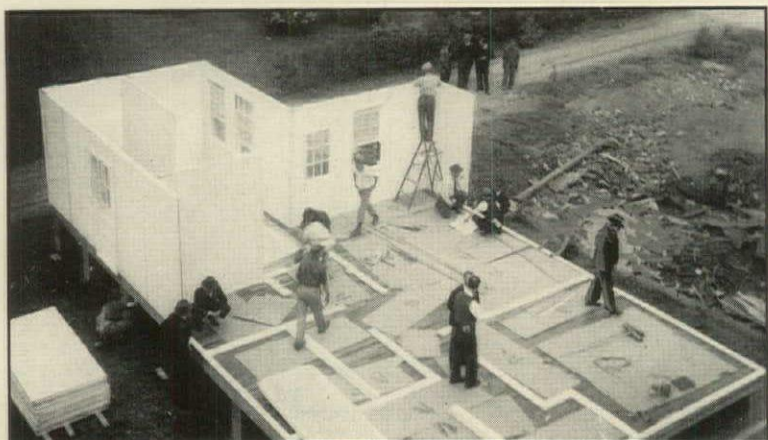
# HUSSMANN HOUSES

♦ ♦ ♦ *for Better Living* ♦ ♦ ♦



**Complete Facilities for Mass Production!**

**TODAY-  
AND IN  
POST-WAR  
DAYS!**



**Designed for Efficiency and Comfort!**

HUSSMANN Prefabricated Houses are providing modern, comfortable living for War Workers to help maintain high levels of production and morale. That is the pressing need right now!

But later, when the war is over, our tremendous experience and facilities will be available to a peaceful America — an America in which new housing takes a position of even greater importance.

For wartime housing today — for peace-time housing tomorrow — our huge factories and experienced engineering are at your service — eager to help build a victorious nation — a better-living nation!



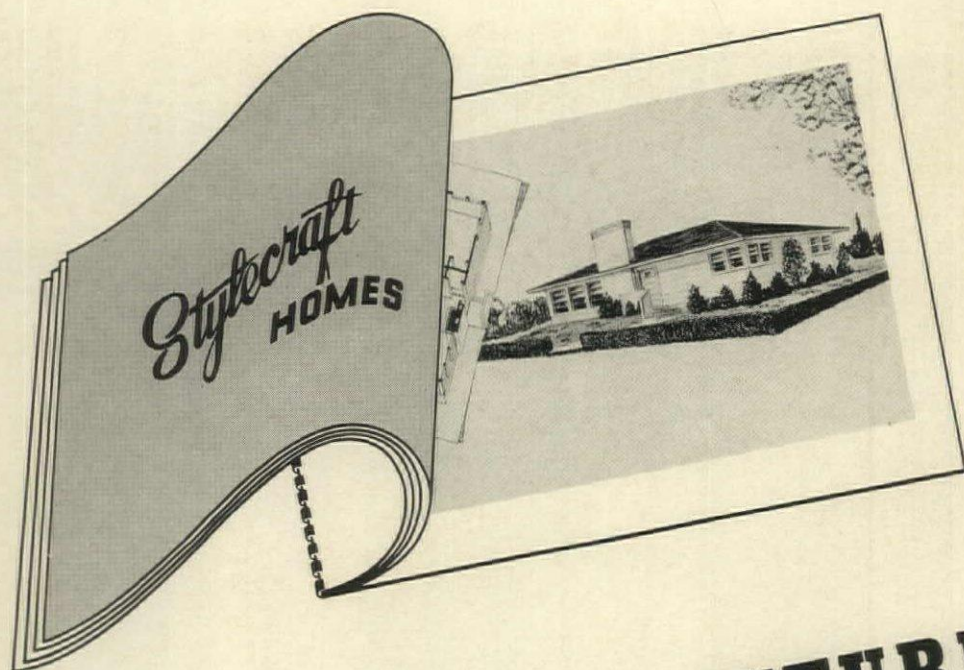
**Better Living—At Minimum Cost!**

**HUSSMANN-LIGONIER CO., ST. LOUIS, MO.**

★ ★ ★ ★ ★







## FAITH IN THE FUTURE

Before Pearl Harbor, our one aim was to produce sturdy, well-designed, and well-constructed prefabricated homes, which embodied the good points of conventional construction and appearance, within the means of the average American Workman.

At present, our entire facilities are enthusiastically pledged toward helping to win this war, by any means in which wood plays a part. BUT—our faith in the future is such that even now, as our war production is being pushed forward, our planning and drafting department is busily engaged in transferring to paper our ideas of post-war housing, confident in the future of the prefabrication industry.



*Photo of one of our war housing units*

When Victory comes, we expect to be ready to do our full share toward creating a bigger and better America.

**ILLINOIS LUMBER MANUFACTURING COMPANY**  
**CAIRO, ILLINOIS**





**A House  
That Is Expansible  
Into a Four-Room Dwelling**

THE Palace Mobile Home is, in every sense of the word, a movable cottage—a dwelling equipped to provide all the comforts of a permanent home, and, at the same time, a dwelling that can be moved at a moment's notice from city to city, wherever your fancy may dictate, or wherever your business or occupation may call you. Just move the furniture into the house proper, fold in the walls, and the house is ready for traveling.



*How the Mobile Home looks when folded for traveling*

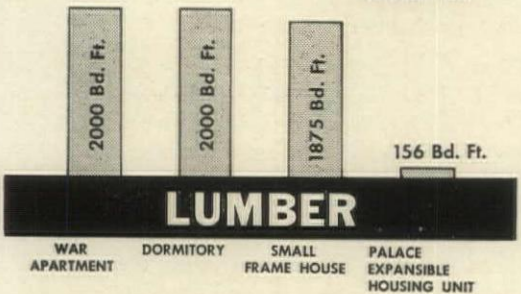
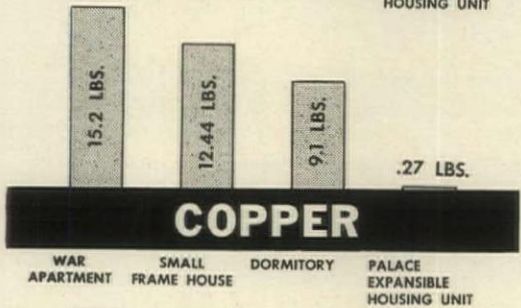
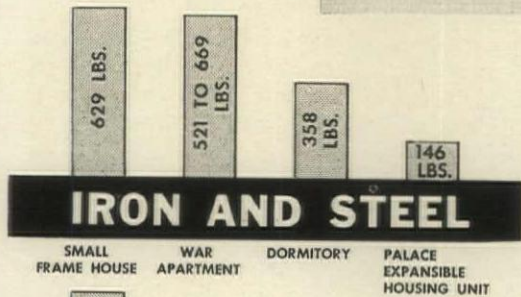
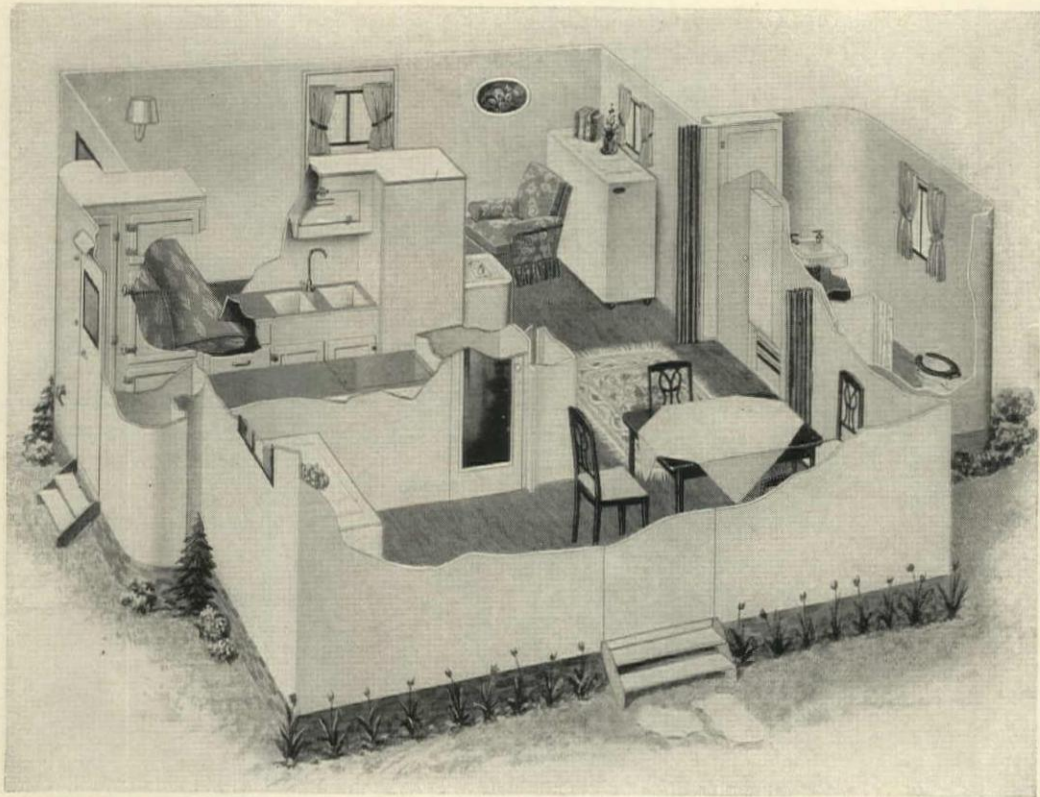


*How the wings unfold to form additional rooms*

**Palace**  
**TRAVEL COACH CORPORATION**



PALACE  
MOBILE  
HOMES  
**SAVE**  
VITAL  
WAR  
MATERIALS



Quick Comparison Per Person Housed

TYPE OF UNIT	PERSONS	IRON AND STEEL	COPPER	LUMBER	FACILITIES
PALACE EXPANSIBLE HOUSING UNIT	6	878 Lbs.	1.65 Lbs.	937 Bd. Ft.	3 BEDS, KITCHEN SINK, REFRIGERATOR, COOK STOVE AND HEATER, COMMUNITY UTILITIES
SMALL FRAME HOUSE	4	2,514 Lbs.	49.75 Lbs.	7,500 Bd. Ft.	BATH, NO STOVE OR ICE BOX
WAR APARTMENT	2	1,042 to 1,338 Lbs.	30.3 Lbs.	4,000 Bd. Ft.	TOILET-SHOWER NO STOVE OR ICE BOX
DORMITORY	1	358 Lbs.	9.1 Lbs.	2,000 Bd. Ft.	COMMUNITY UTILITIES

MANY badly needed housing projects have been abandoned because of lack of vital building materials. The facts shown in the charts on this page quickly prove that Palace Mobile Homes use less vital material than any other type of housing. Through mass production methods and elimination of heavy materials, man-power and transportation essential to the war effort are conserved. Careful analysis of all of the many savings should command the consideration of every authority interested primarily in winning the war.

Prices and specifications on our dwelling, utility toilet, shower and laundry units furnished on request.

PALACE TRAVEL COACH CORPORATION  
FLINT, MICHIGAN

**Palace**  
TRAVEL COACH CORPORATION



# STRUCTIFORM

pioneers a policy of COMPLETE  
SERVICE to ..and UNLIMITED Cooperation  
with ARCHITECT.. BUILDER.. CONTRACTOR  
in Prefabricated Construction

TODAY... Prefabricated Housing is a lusty young Industry feverishly engaged in meeting the vital needs of America's mounting War program. But ... in the Peace days to come it will be called upon to employ its talent in a vast effort to meet the new America's home-starved needs.

*So we of Structiform plan and build for the Future ... even as we take account of today.*

V V V

Structiform achieves the seemingly impossible combination of maximum Standardization with the utmost Flexibility. It attains the speed and economies of "mass production," yet the variables of personal tastes ... needs ... and situations may be as easily recognized as in custom construction.

Structiform has not stopped with its own innovations. In one comprehensive service this system of prefabrication marshals the talents, experience and resources of many of America's greatest suppliers.

Structiform presents the wood-working craftsmanship of the famed Starck Piano building organization. For three generations Starck has studied ... planned ... and built with wood. This organization of Starck-trained men is geared for action. Experience in mass-precision-production is fortified with the equipment needed to put ingenuity into practice. 180,000 square feet of wood-working plant ... fully equipped with modern machinery ... are available for all types of Structiform prefabrication.

Starck officers ... with Engineers and Designers of equal caliber ... stand at the apex of Structiform. Shoulder to shoulder with them are such foremost specialists as Sherwin-Williams ... American Radiator ... Kimberly-Clark ... and such other "blue-chip" producers as Insul-Mastic ... P. & F. Corbin ... Libbey-Owens-Ford ... Service Industries, etc.

13 nationally-known building suppliers in

STRUCTIFORM ENGINEERING CO. • 234 South Wabash Avenue • CHICAGO, ILLINOIS

SEND TODAY FOR THE NEW  
STRUCTIFORM EXPLANATORY  
BROCHURE

A complete detailed outline of everything you'll want to know about the revolutionary Structiform System. Engineering data ... typical plans ... detail drawings, etc. Invaluable in bidding for Government housing.

STRUCTIFORM IS F.H.A.  
AND F.P.H.A. APPROVED

all join in the planning and development of Structiform. Yet the widest latitude is possible in the specifications for each specific construction.

Structiform provides the basic building unit. From there on ... the requirement of each individual situation as to design, elaboration and adaptation is developed in close cooperation between Structiform Engineers and the Architect, Builder or Contractor. Thus, in brief, the Structiform system extends the advantages of prefabrication ... without imposing the limiting factors of enforced standardization.

V V V

Structiform ... F.H.A. and F.P.H.A. approved ... is prepared to cooperate with you in estimating or preparing specifications for all types of Governmental needs ... Cantonments ... Coast Guard units ... Officers' Quarters, etc., and for Defense Area Housing.

Our comprehensive, up-to-date files provide immediate time-saving data on prices, etc. This service is freely available to you.

To more thoroughly understand the unique nature of the fully organized Structiform system, we urge you to write for our explanatory brochure. Complete with data, typical plans, construction details ... it is a work book of great practical value. A copy will be supplied without obligation.

## MONTH IN BUILDING

(Continued from page 4)

Lumber, a favorite substitute for critical materials, was subjected to a temporary freeze order (Limitation Order L-121) on May 31, and kept in a state of suspended animation by renewals of the order.

Conservation Order M-208 was issued on August 22, replaced the old stop-gaps, became effective August 27. It established rigid controls on the distribution and uses of all types and grades of soft-wood lumber.

In the new order, lumber uses are divided into four classifications, based on the relative essentiality of the use to the war and civilian economies:

**Class 1:** orders for the most urgent needs, bearing preference ratings of AAA, AA-1 or AA-2. (All Army and Navy needs fall into this class.)

**Class 2:** orders bearing preference ratings of AA-2X or lower but higher than A-1-a.

**Class 3:** orders bearing preference ratings A-1-k through A-1-a.

**Class 4:** orders bearing preference ratings lower than A-1-k.

Manufacturing plant construction is listed in Class 2; schools and college buildings relegated to Class 4; defense housing and projects in Class 3. Aimed to simplify the handling of preference-rated orders, the ruling also states that no person may accept delivery of softwood lumber unless the lumber is required for use within 60 days. If delivery creates stocks in excess of 60 days' supplies, it is forbidden.

**New Appointment:** Overall need for lumber is estimated at about 38,000,000,000 board feet for the year, six times the number of board feet estimated for production. Appointment of seasoned lumberman Ben Alexander as Special Assistant for Lumber at WPB was sign of Government's awareness of how tough a job it is going to be to see the forest off total production for the trees.

**Fuel oil:** If there was little oil for the lamps of China, there is going to be even less for the furnaces of eastern United States this winter. WPB banned all fuel oil deliveries in east-coast gas-rationing areas. Despite every cajoling effort on the part of Government propagandists, and the President himself, at midmonth the American Society of Heating and Ventilating Engineers figured that less than 1/70 of the oil-burning furnaces (20,000 out of 1,400,000) in the 17 eastern states have been converted to coal. All kinds of personal appeals were made:

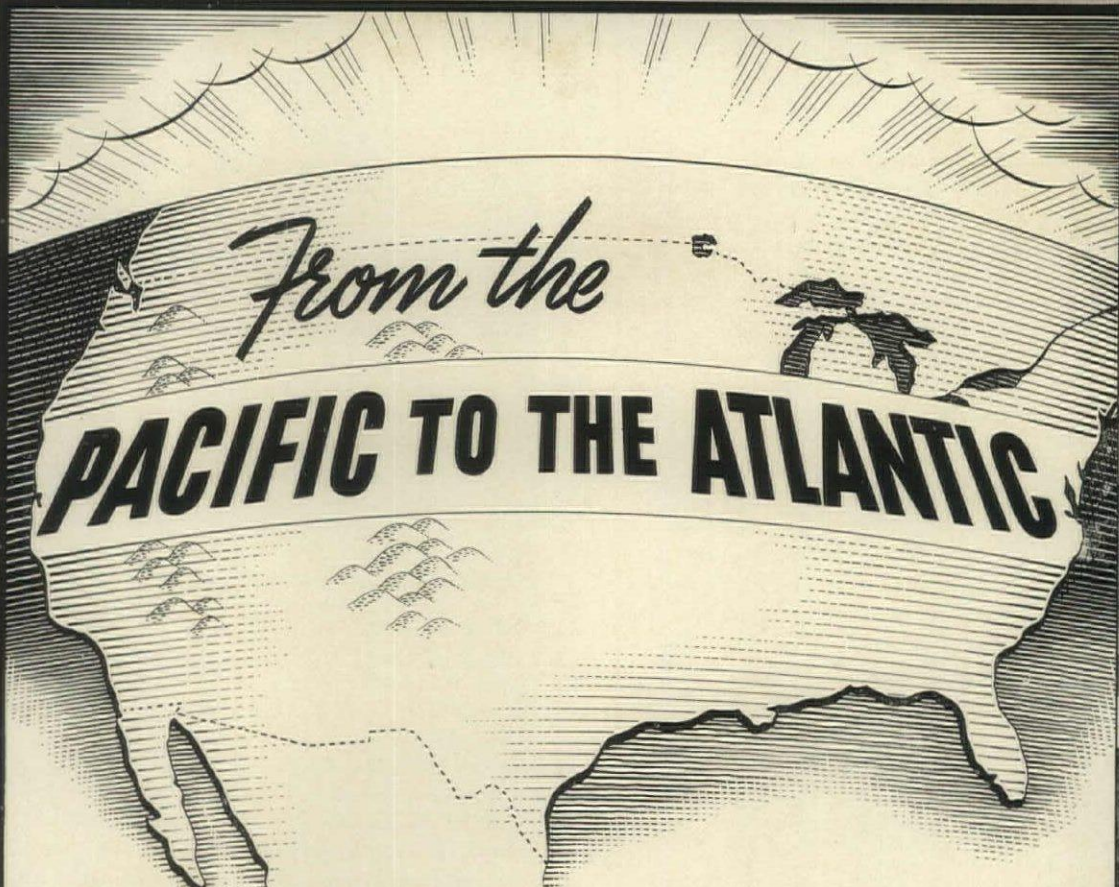
1: You can convert cheaply. General estimate at its lowest: \$15—highest \$100.

2: You can obtain convenient credit. FHA said credit facilities of 5,000 private

(Continued on page 174)

STRUCTIFORM ENGINEERING CO—  
234 SOUTH WABASH AVE CHGO, ILLS





# From the **PACIFIC TO THE ATLANTIC**

**F**IVE thousand houses in five months was the order. The largest housing project ever contracted. Five thousand complete living units for war workers in the vital Norfolk Navy Yard.

Again Barrett & Hilp rolled up their sleeves. Within 38 days almost 1400 houses had been erected — one of the fastest records ever made on this type of project.

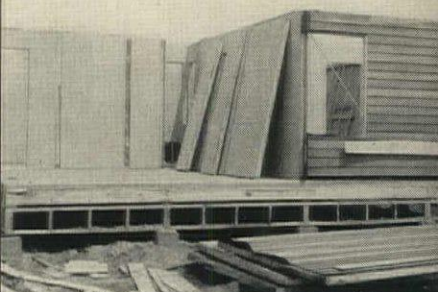
Now this mammoth construction job nears completion. Prefabrication for the last house will leave the plant September 20th. All houses will be finished by October 20th.

Barrett & Hilp have been building up for 30 years and are "conditioned" to handle any job they are called upon to do. The latest assignment is twenty-six concrete ship barges for the U. S. Maritime Commission.

Today from the Pacific to the Atlantic Barrett & Hilp are busy in the country's "all-out" war effort. Tomorrow this full productive capacity will be turned to the service of a nation at peace.

## **BARRETT & HILP**

GENERAL CONTRACTORS • SAN FRANCISCO





## MONTH IN BUILDING

(Continued from page 172)

lending institutions are available to aid home owners—at favorable terms.

3: You will very probably be cold this winter if you do nothing. Harold Ickes laid bare the brutal fact that fuel oil storage in the East was  $\frac{1}{2}$  what it was last year.

4: You have a chance to be patriotic. August 17-22 was declared "War on Fuel Waste" week, urged the citizenry by means of newsprint and radio to take ordinary conservation measures.

**Ration order:** But shortages threatened so badly even with all the stop-gaps that could be invoked, that on August 13 the first vague rumblings of rationing were heard in the press, and on August 20 action was really in view: it was reported that a plan has been drawn up by OPA and submitted for the special War Production Board sub-committee, soon to be named by Donald Nelson.

### The plan:

The Atlantic Seaboard is to be divided into four areas, consumers in each will receive books of ration coupons allowing

them to purchase a certain amount of fuel oil for a given period.

The four areas designated: The New England States and upper New York State; Southern New York and New Jersey, Pennsylvania, Delaware and Maryland; the stretch from Virginia along the coast to Charleston, S. C.; from Charleston to the southern tip of Florida. In each area, rations will be based on temperatures common to each.

The slash: no authoritative estimates are available, but previous predictions seem to indicate that an over-all reduction of at least 25% will be imposed (based on last year's figures).

**Out of hot water?** New York City's energetic Mayor La Guardia got down to cases late in the month, declared he was considering a program for rationing hot water in apartment houses as a contribution to the fuel-conservation drive. Using the recommendations of his specially appointed committee of 30 representative operators and owners of apartment houses, he suggested hot-water periods limited to 6:30 to 9 a.m. and 5-8 p.m. Full program yet to be announced, adopted.

**Dissension:** It was, however, a good case of no sooner said than not done. Next day's New York papers carried banner headlines announcing that apartment owners "defied" the Mayor, declared at a meeting of *thirty-nine* important apartment-building owners and operators that they would continue to supply hot water at all times to their tenants "as long as they can get fuel supplies." Estimating that less than 5% of the fuel consumption was for hot water, and that only a few non-converted oil-burning apartment buildings were left in New York, they gallantly promised to by-pass the Mayor unless rationing were made compulsory, a step the Mayor lacked the power to take.

Mayor La Guardia replied, with no rancor, in his radio "Talk to the People" on August 24, said only that regulations, if necessary, will come from Washington, "and in all likelihood they will be far more severe than those we have now under study."

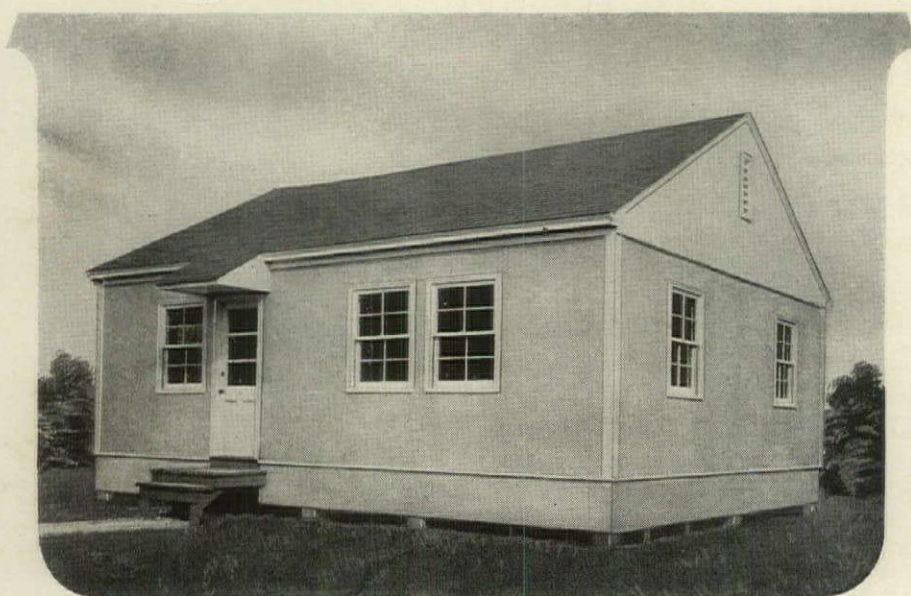
What appeared to end all argument was President Roosevelt's dictum to the press at the end of the month that fuel-oil rationing was to be fact, no longer conjecture, that it was to follow lines of OPA's plan, and that the rationing area would be wider than formerly thought, the order stricter (25% less fuel oil than last winter) than was formerly supposed.

**Ersatz:** a growing and palpable interest in substitute materials continues. Commissioner Ferguson called this month for a "maximum exercise of ingenuity in developing new materials or new uses for existing materials." J. W. Follin of the

(Continued on page 176)



## Behind every Pre-fab house we build...



☆☆☆ ☆☆☆

## Over 1000 of America's banks!

Like a duck to water—we've taken to pre-fabrication. After all, when you've completed a BANK contract every ten days for over thirty years... there's no such thing as "it can't be done." Here's a complete, integrated organization, with *everything* required to assume UNDIVIDED responsibility. Today we're tackling some of Uncle Sam's toughest assignments in our field. We're beating the promise, turning out thousands of grain bins in addition to pre-fabricated houses. No friction, no headaches—but PRODUCTION. That, in one word, is our *business*.

**Bank Building and Equipment Corporation**  
OF AMERICA

WAR PRODUCTION DIVISION  
7513 SOUTH BROADWAY • ST. LOUIS, MO.

**DESIGN, Inc.** a subsidiary—who design, build, modernize and equip commercial buildings and interiors.



# ALADDIN PREFABRICATED HOMES DATE FROM 1906....

WHEN ALADDIN DEVELOPED THE FIRST PRACTICAL  
METHOD, AND HAS SOLD THEM CONTINUOUSLY  
SINCE THEN — FROM HERE TO CHINA!

To be able to buy a prefabricated home, "made at the Mill," which could be shipped thousands of miles, put together and be exactly as ordered, was a dream which came true back in 1906.

That year, W. J. and O. E. Sovereign, went into production of what they called "readi-cut" homes and were the world's pioneers in this field. The magic of being able to select a home and purchase it, complete down to the last nail and window light, via a two-cent stamp, inspired them to name their organization "The Aladdin Company."

As such, they have sold millions of dollars worth of homes to Americans. In many cases, several generations of a family have bought their prefabricated homes from Aladdin.

The fame of these homes, so convenient to buy, so easily assembled, spread from the Americas around the world and they have been shipped to Iceland, to Britain, to India, to Venezuela, and to the far interior of China, where missionaries, with no building or construction experience, have enjoyed the solid comfort of American-made homes, in preference to the paper, bamboo and mud available locally — and further enhanced



the natives' belief in white man's magic!

Continuously in volume production of prefabricated homes from 1906, for 36 years, until the start of this war, Aladdin is now serving Uncle Sam by providing prefabricated housing for the armed forces at many camps and bases. Again

its full facilities are occupied on government work just as they were in World War I.

The speed and convenience of the Aladdin method is illustrated by a recent telegraph government order for housing for 1200 men at an air base. The men were "on their way" when the order was received. But the housing facilities were ready for them when they arrived.

With both the East and West Coast large Aladdin plants working three shifts supplying the military forces with comfortable housing, Aladdin homes are not now available to the public. But when the war is over, Aladdin will again be supplying tens of thousands of Americans with fine, prefabricated homes at low cost, and again, Aladdin will be pioneering — leading the way in the use of new materials, new methods that will continue to assure Americans the highest standard of living in the world.

## THE ALADDIN COMPANY

ESTABLISHED 1906

BAY CITY, MICHIGAN • PORTLAND, OREGON



## MONTH IN BUILDING

(Continued from page 174)

Producers Council observed simultaneously that new uses for timber, clay, iron, cement, cut and cast stone, marble and glass are being developed throughout the building industry's labs.

University of Illinois College reported on August 1 a tested, approved, inexpensive substitute building material—earth mixed with a binder (asphalt emulsion), which proved to be soundproof, fireproof, waterproof and required only unskilled labor to apply. Familiar name for it: adobe.

### HERE STARTS A Complete House

Seven giant presses like the one shown here make this the strongest house ever built. By means of tremendous pressure and waterproof glue, plywood becomes as one piece of wood with the framework, and it is aptly described as "stressed skin" in that this plywood skin takes a great deal of the strain ordinarily imposed on a few nails and 2x4's. No nails will ever show their ugly heads on our walls a few years after the house is built. Sealed-in insulation cannot fall out due to the vibration of everyday use.

This house is complete in that we include all plumbing and wiring in one prefabricated panel. In fact, all materials necessary to complete it, from foundation to the key in the front door, can be furnished by us. Standardization of parts has been so finely worked out that only nine different lengths of material are used in construction, yet variety of plan is unlimited. Whether you desire the conventional shingle, siding or brick veneer, and canvas covered interior walls, or the rhythmic repetition of panels and natural wood finish, we can furnish it. With seven different panels this home may be as conventional as a Cape Cod cottage, or as modern as some of the houses you see in the editorial columns of this magazine.

As for coal, reports confirm that anthracite users have heeded the plea to anticipate their supply. Although shortages of labor continue to worry producers, especially in the Wilkes-Barre, Pa. area, this may be solved by Government insistence on a change in contract to permit workers a 6-day week.

Steel was still a "serious" case, with convalescence seemingly far off. Shortages are increasing, and WPB and the Army are still tossing the ball of distribution fiercely between them. Prediction is that increased military control over distribution is to be expected, with essential

civilian industries getting what is left in the grab-bag.

Minor maelstrom was created late in the month when Donald Nelson bounced Frederick Libby, engineering consultant of WPB, allegedly for allowing a premature news leakage on his report on waste, faulty use of equipment and materials throughout big and little steel.

## STRICTLY PERSONNEL

►FHA announced that the title "Deputy Commissioner" now refers only to Mr. Earle S. Draper, (see cut) formerly "As-



EARLE S. DRAPER: new handle — old broom.

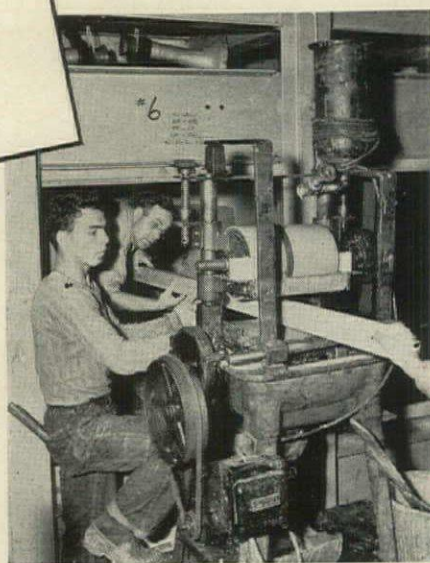
sistant Commissioner," for whom the new office has been created, no longer to the many area chiefs, now designated as "Zone Commissioners." To serve directly under Blandford, the new Commissioner's duties are concerned specifically with "the operations of the Federal Housing and in postwar housing activities." In effect no different from his previous concerns, now Mr. Draper's duties are formalized and official.

Practical and immediate results of the new office probably will be to line up the FHA more officially behind the war program, remove it further from "business as usual" schools of thought; also, Draper will be active in the building industry's fight for priorities with the WPB.

►FWA, WPB released names, addresses of regional representatives appointed throughout the month. Indicative of the trend toward decentralization in Government agencies was FWA's announcement of numerous Regional Directors' appointments, NHA's announcement of six Regional Directors (among them, Charles S. Ascher for New York City, Willard O. Day for Washington, D. C.), and WPB's disclosure that all districts throughout the nation will be completely staffed with directors, experts and technicians in all phases of its activity.

►Mrs. Florence S. Kerr, assistant WPA Commissioner, named a member of the

(Continued on page 184)



We, too, are looking to the future, and the homes we produce will make for better living. New plastic finishes will revolutionize upkeep; new lighting will be pleasant to the eyes; new bathrooms and kitchens will have unbelievable conveniences which will be the housemaids of the future. These improvements as well as our unique system of construction will make this home the most economical ever built.

The Government has bought over 1,000 of our homes to help produce the day of victory. When this day is at hand we will send you a catalogue of our new homes so that we may all work together for the victory of the peace.

Remember, this is one of the finest products from a company that has been building the largest as well as the smallest homes in this territory for the past twenty-five years.

## HOME BUILDING CORPORATION

Prefabricators & Builders of All-American Homes

4534 MAIN ST.

KANSAS CITY, MO.



Fortune

TIME

THE W



"But that house  
wasn't there 10 hours ago!"

Here's the story of a lumber merchant who thought he ought to do something about war housing. "In ten hours," he said to the U. S. Navy, "I can put up a six-room house, ready for occupancy, complete to the last curtain rod and brick in the fireplace—not a portable, mind you, but a finished, livable residence."

The Navy replied: "Show us." He did—in nine and one-half hours flat, before as critical a quorum of housing experts as could be mustered in the nation's capital—and got the government order.

But—this twentieth-century Aladdin needed to buy in volume to create his pre-fabricated wonder-house on the large scale required. He could have credit, certainly, but he wanted to buy for cash to speed the whole operation and to retain complete initiative in determining when, where and how to make his purchases. His local bank called in the Chase, a substantial loan was made quickly to the manufacturer—in which our correspondent bank, of course, participates. Now, every day, rows of houses are springing up where vitally needed.

*This is but one among hundreds of actual instances where bank loans are definitely speeding, simplifying, furthering the war effort along the industrial front.*

**THE CHASE NATIONAL BANK**  
OF THE CITY OF NEW YORK

—with permission of  
THE CHASE NATIONAL BANK

... with justifiable pride we offer the story above as one indication of our intensive and all-out participation in the War effort ... After Victory, ALLIED HOUSING will again contribute to peaceful living.

## ALLIED HOUSING ASSOCIATES, INCORPORATED

Langhorne

Plants: Bristol, Pa.

Baltimore, Md.

Pennsylvania

Norfolk, Va.



War Workers . . . *in this area*  
*can be housed quicker..and*  
*more comfortably . . . with*

# KROENING PREFABRICATED DEMOUNTABLE Forest Products HOMES

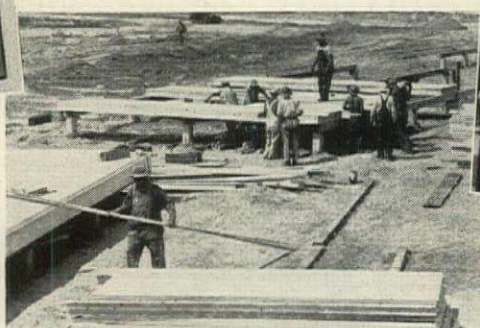


RADIUS OF  
 KROENING  
 PREFAB HOME  
 SERVICE



**U.S.**  
 DEFENSE HOUSING PROJECT  
 500 DWELLINGS  
 KROENING ENGINEERING CORPORATION  
 GENERAL CONTRACTORS  
 MILWAUKEE, WIS.  
 J. FLETCHER LANKTON ARCHITECTS PROJECT No.  
 JOHN N. ZIEGELE AND ENGINEERS ILL. 11094

MAJOR CHARLES A. REID  
 Project Manager, FPHA



Floor Panel Installation

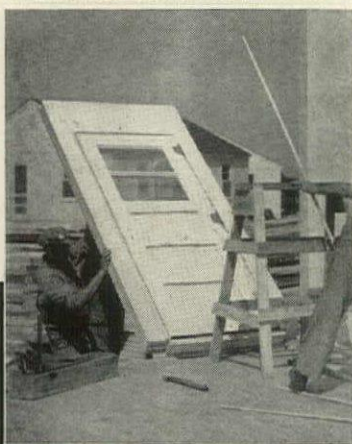


Twin Houses Two Hours Above  
 the Floor

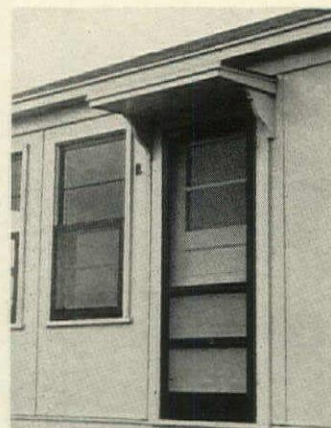


Complete 2-bedroom House on One Truck

Complete Door Assembly in Panel



Sturdy Panels Easily Erected



Ready for Occupancy



SKILL, INTEGRITY,  
 RESPONSIBILITY

**KROENING ENGINEERING**  
*Corporation*

4500 W. MITCHELL ST.

MILWAUKEE, WIS.





## How to build Low-Cost Housing **AHEAD** of Schedule

**The Robert McCarthy Company *Planning*  
*Ends Waste Time and Waste Energy***

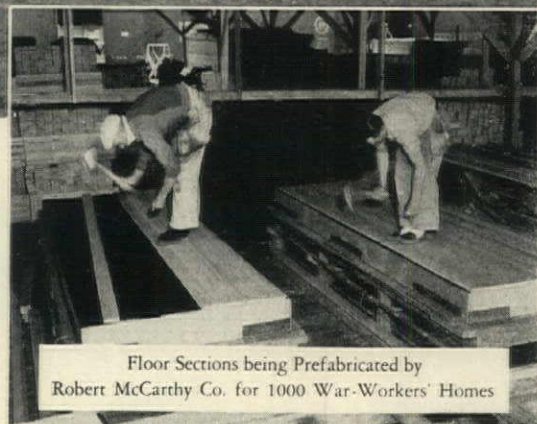
In building 1000 prefabricated homes in Vallejo, Calif., the Robert McCarthy Company *finished two months ahead of schedule!*

*Planning every operation creates no housing at first.* Yet Robert McCarthy of 26 years experience, from Alaska to Mexico, knew he would eliminate waste time and waste manpower by starting right.

*Every man's job, from gravity unloading of materials at the mill located at a spur track near the building site, was engineered.*

McCarthy pioneered *war-housing sub- and main-assembly lines* and adapted modern machines—all of which lifted the load from the backs of skilled men and saved their energy for more output. Each four-room house, prefabricated and erected, averaged 34 minutes.

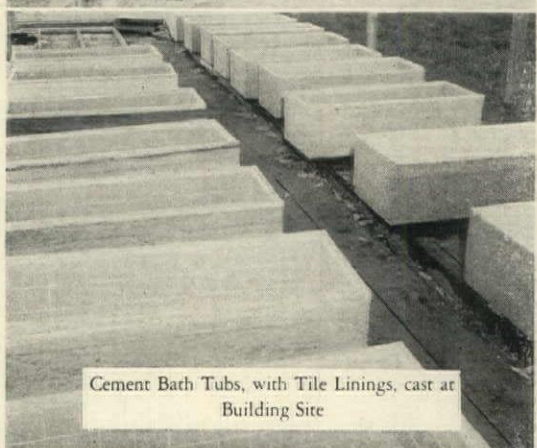
For successfully completing large contracts ahead of schedule, the Robert McCarthy Company has a nation-wide reputation because of its inventive "know how".



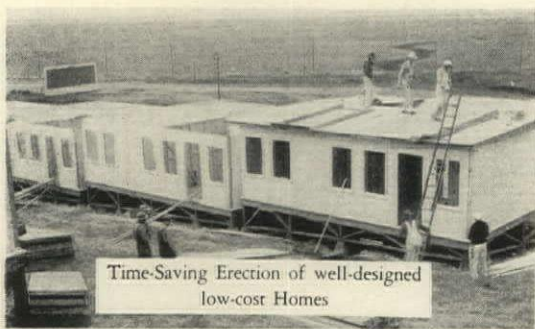
Floor Sections being Prefabricated by Robert McCarthy Co. for 1000 War-Workers' Homes



Painting Ceilings of Roof Sections



Cement Bath Tubs, with Tile Linings, cast at Building Site

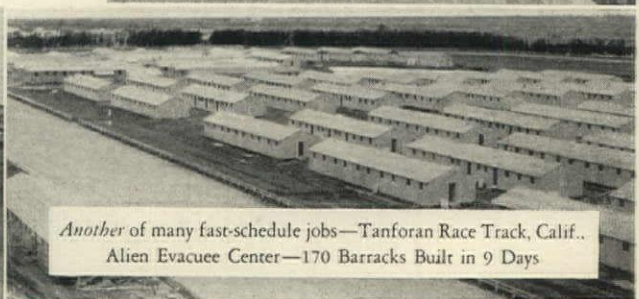


Time-Saving Erection of well-designed low-cost Homes

### **ROBERT McCARTHY COMPANY**

General Contractors

1050 Kirkham St., San Francisco; Chandler Bldg., Washington, D. C.



Another of many fast-schedule jobs—Tanforan Race Track, Calif., Alien Evacuee Center—170 Barracks Built in 9 Days



# SPEED--

... IN PREFABRICATION OF  
HOMES-BARRACKS AND INDUSTRIAL BUILDINGS



**SPEED** is what the war program calls for these days... Speed is what you may expect from the two modern plants of The City Lumber Company in Bridgeport and New London, Conn.

We have supplied: Bridgeport Airport—50 Buildings in 30 days. U. S. Navy—100 homes at New London, Conn. We are supplying: U. S. Housing Authority—500 demountable homes at New London, Conn.

WRITE FOR PROSPECTUS ON BUILDINGS FOR DOMESTIC  
DELIVERY DIRECT TO SITE, OR CRATED FOR EXPORT

**CITY LUMBER CO. BRIDGEPORT, CONN.**

## KING'S KASTLE HOMES

*The Home of Tomorrow!*

★ LOW PRICED ★ DURABLE ★ PORTABLE ★ SPACIOUS ★

MODERN IN DESIGN  
SIMPLE ERECTION

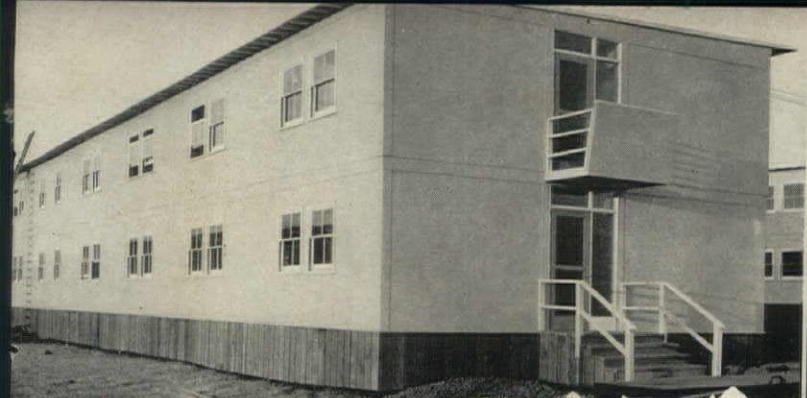
Thousands of King's Buildings are now in use in every state over the United States, Alaska, Greenland and many foreign outposts.

A strong, durable, prefabricated house has been achieved in KING'S KASTLE HOMES through years of building and experimentation.

**BUILT BY T. C. KING CO. BOX 788 ANNISTON, ALABAMA**

*One of the oldest Pre-fabricating companies*





PREFABRICATED PLYWOOD DORMITORIES



PREFABRICATED PLYWOOD HOUSING

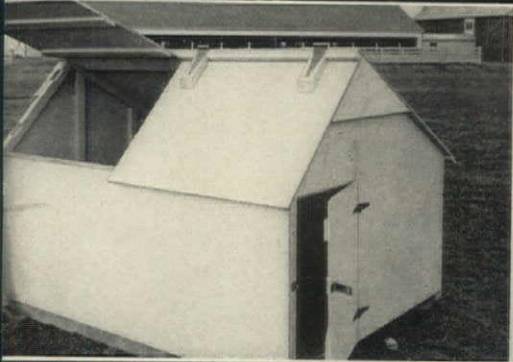
*Add a new simile:  
LIKE PLYWOOD IS  
to PREFABRICATION!*



PREFABRICATED, DEMOUNTABLE PLYWOOD CHURCHES



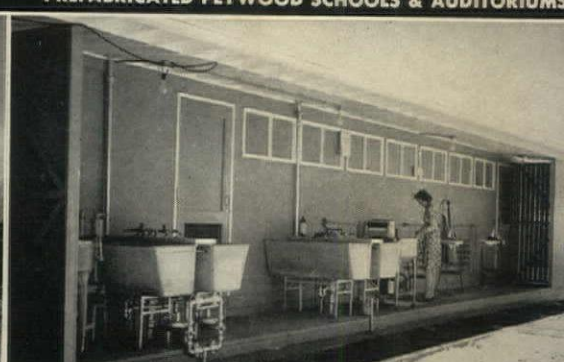
PREFABRICATED PLYWOOD SCHOOLS & AUDITORIUMS



PREFABRICATED PLYWOOD FARM STRUCTURES



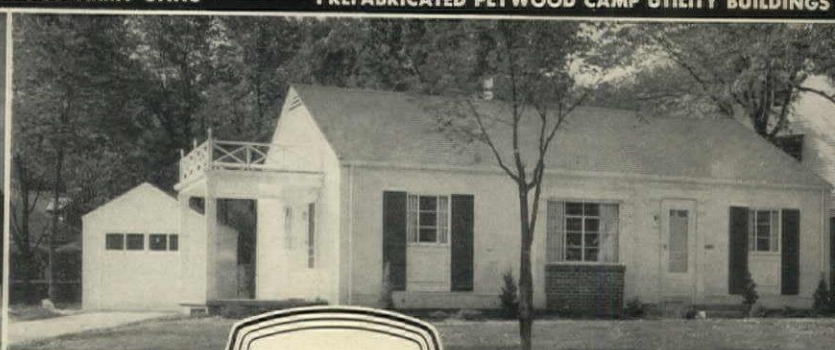
PREFABRICATED PLYWOOD ARMY UNITS



PREFABRICATED PLYWOOD CAMP UTILITY BUILDINGS



PREFABRICATED PLYWOOD COMMERCIAL & INDUSTRIAL BUILDINGS



PREFABRICATED PLYWOOD HOUSING

**Douglas Fir Plywood has been found an ideal material for every type of prefabricated structure!**

● Prefabrication and Douglas Fir Plywood mean the same thing to many people . . . and rightly so! For plywood's large sizes, light weight, great strength, amazing versatility and easy workability have done much to change prefabrication from theory to successful practice.

A majority of tomorrow's structures are likely to be prefabricated—and nat-

urally they'll be prefabricated with plywood. *It will be superior plywood, too!* Now, while the Douglas Fir Plywood industry is devoting its entire capacity to produce plywood for vital war purposes, its research engineers and chemists are seeking and finding ways to make the post-war Douglas Fir Plywood you will specify or buy *more useful to you than ever before!*

**TO HELP SPEED VICTORY**

the Douglas Fir Plywood Industry is devoting its entire capacity to war production. We know this program has your approval.

**WRITE FOR LITERATURE**

on Prefabrication with Plywood. It will be sent without charge or obligation . . . Douglas Fir Plywood Association, Tacoma, Wash.

**REMEMBER**—there's a grade or type of Douglas Fir Plywood for every purpose. A genuine panel bears one of these "grade trade-marks": **PLYWALL**—wallboard grade, **EXT-DFPA**—waterproof type, **PLYSCORD**—sheathing grade, **PLYPANEL**—cabinet grade, **PLYFORM**—concrete form grade.

**DOUGLAS FIR PLYWOOD**

*Real Lumber*  
**MADE LARGER, LIGHTER  
SPLIT-PROOF  
STRONGER**

"A PRODUCT OF AMERICA'S ETERNALLY REPLENISHING FORESTS"



# FOR VICTORY TODAY AND SOUND BUSINESS TOMORROW



## Get This Flag Flying Now!

This War Savings Flag which flies today over companies, large and small, all across the land means *business*. It means, first, that 10% of the company's gross pay roll is being invested in War Bonds by the workers voluntarily.

It also means that the employees of all these companies are doing their part for Victory . . . by helping to buy the guns, tanks, and planes that America and her allies *must* have to win.

It means that billions of dollars are being diverted from "bidding" for the constantly shrinking stock of goods available, thus putting a brake on inflation. And it means that billions of dollars will be held in readiness for post-war readjustment.

Think what 10% of the national income, saved in War Bonds now, month after month, can buy when the war ends!

For Victory today . . . and prosperity *tomorrow*, keep the War Bond Pay-roll Savings Plan rolling in *your* firm. Get that flag flying now! Your State War Savings Staff Administrator will gladly explain how you may do so.

If your firm has not already installed the Pay-roll Savings Plan, *now is the time to do so*. For full details, plus samples of result-getting literature and promotional helps, write or wire: War Savings Staff, Section F, Treasury Department, 709 Twelfth Street NW., Washington, D. C.



Save With

## War Savings Bonds

This Space Is a Contribution to America's All-Out War Program by

THE ARCHITECTURAL FORUM





LET'S TALK

# Horse Sense

about this House of Tomorrow

**E**VERY building material has its place in architectural design and engineering. But Steel provides a *combination of qualities found in no other material.*

Steel is strong and tough . . . high in strength to weight ratio among building materials . . . fireproof and verminproof . . . extremely versatile . . . inherently long in life . . . easily workable . . . and low in cost, considering its advantages and years of performance.

Steel has and always will have a very definite place in residential buildings—in which the use of less efficient materials must mean sacrifice of many important qualities.

After we've won the war and steel again becomes available in ample quantity for all types of building construction, Republic will be ready as in pre-war days with the most complete line of steels and steel building products made by any single manufacturer.

And through the added experience gained in producing millions of tons of fine steels for armament—through constant research to improve steels and steel products—the Republic line described in Sweet's Catalog File will materially contribute to the design and construction of structures that will be better and lower in cost than ever before.

*For information see Sweet's 13/6 for sheet products; 27/3 for pipe; 9/1 and 21/2 for Berger lath, lockers and other items; 23/5 for electrical raceway; 15/18 for Truscon products.*

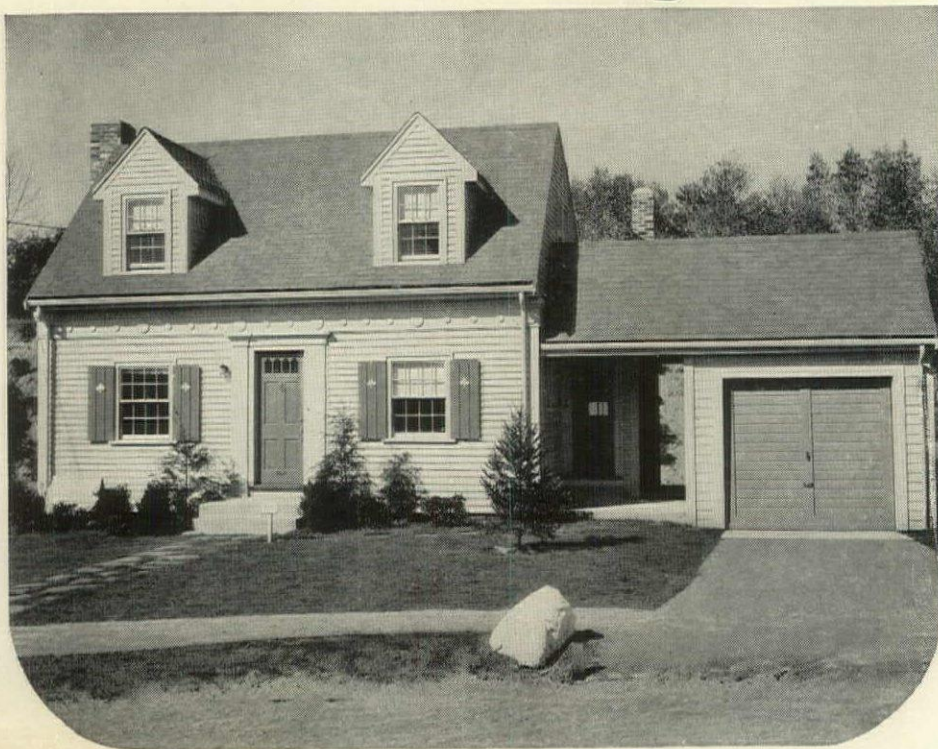
REPUBLIC STEEL CORPORATION • General Offices: CLEVELAND, OHIO

Berger Manufacturing Division • Culvert Division • Niles Steel Products Division  
Steel and Tubes Division • Union Drawn Steel Division • Truscon Steel Company  
Export Department: Chrysler Building, New York, New York

**REPUBLIC STEELS**  
*and* **STEEL PRODUCTS**



# Never before has paint faced such a Challenge!

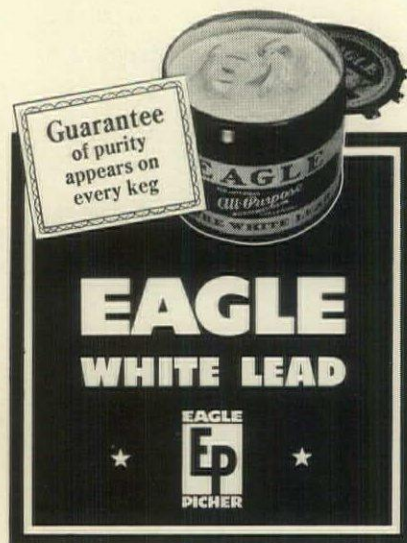


A long service record has always been a desirable quality in house paint. But today long service is a *vital necessity*!

In order to conserve materials and manpower a paint job must last for the maximum number of years.

To play safe, many men responsible for paint selection are specifying Eagle White Lead both for exterior and interior work. They know from experience that the paint made with Eagle White Lead will make good in the present emergency. This paint wears slowly and stubbornly. Its tough, elastic film does not crack or scale. And it leaves a perfect surface for repainting.

Eagle White Lead has been protecting and beautifying American homes, through war and peace, since 1843.



**THE EAGLE-PICHER LEAD COMPANY**  
Cincinnati, Ohio

Member of the Lead Industries Association

## MONTH IN BUILDING

(Continued from page 176)

FWA Program and Project Review Board (newly-established agency), to be responsible for maintenance and operation of service projects under the Lanham Act.

► Assistant Administrator Baird Snyder, assigned to administer all public works projects under the Lanham Act.

### RENT CONTROL RUMPUS

Most magnificent muddle-of-the-month was the rent control situation, which saw extension of defense-rental areas, rages of tenants and real-estate men at too-high, too-low ceilings respectively, landlord finaglings and new steps toward billeting



Acme

**PAUL A. PORTER:** Director of a great many current troubles.

all contributing to Deputy OP Administrator Paul A. Porter's very considerable migraines:

**Old Stuff:** Following a careful, comprehensive survey by Karl Borders of rent conditions in communities which had deluged Washington with charges of rent abuses (FORUM, April, p. 44), the first rent control regulations went through on March 2. These worked as follows: a fair rent date was determined for each community; then the landlords in each were given 60 days in which to adjust rents to the prescribed level. Failure to do so brought excessive fines or jail. This relatively limited order grew up very quickly as the months passed. Like a none too gentle octopus, it spread to more and more communities. On April 28, 323 areas had been designated as defense-rental areas; in July the number was 366, bringing 89 million persons under Federal rent control. Included also in this ruling was an order for registration by landlords of all properties either rented or offered for rent by midnight, August

(Continued on page 186)





**for industrial sash, T00**

## IT'S CURTIS

Traditional Curtis quality—traditional Curtis workmanship and care—these are some of the "extras" you get when you order your National projected wood sash units from Curtis. Curtis is prepared to manufacture these units in accordance with the designs and specifications of the National Door Manufacturers Association, Inc. . . . and to deliver them with Curtis promptness.

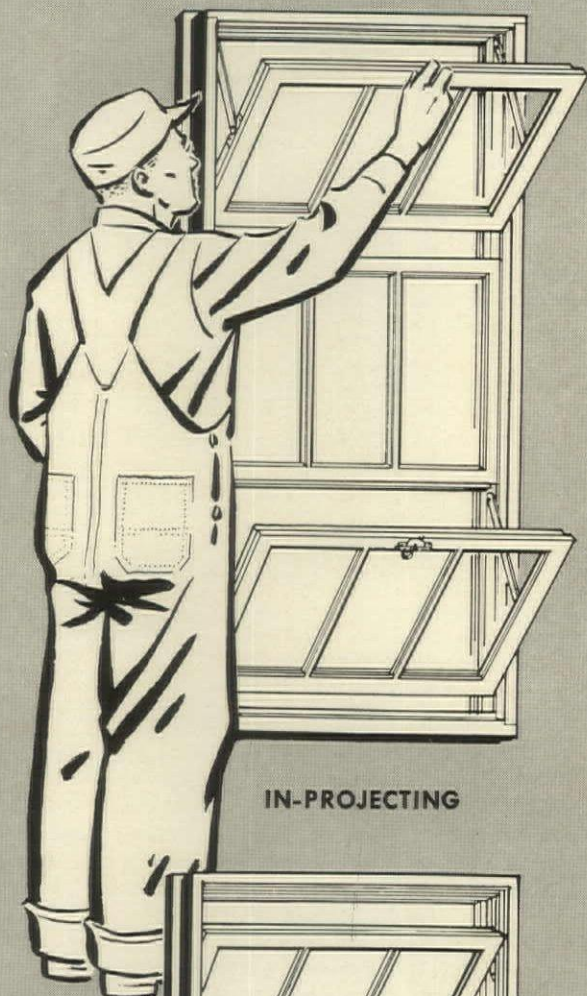
National projected wood sash consist of 18 standardized basic units, designed by Graham, Anderson, Probst and White. Each basic unit is a complete opening in itself and may be installed individually, or the various units may be combined both in height and width to meet almost every installation requirement.

The standardized frame is designed to accommodate either bottom pivoted, in-projecting vents, or top pivoted, out-projecting vents.

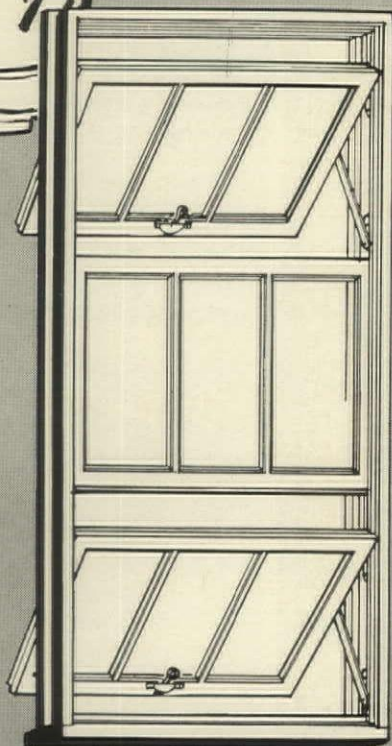
You will find National industrial sash units—as manufactured by Curtis—a material aid in speeding both the planning and installation of windows in industrial and commercial buildings, schools, hospitals, etc. Put your sash problems up to Curtis, and use their 76 years of experience in making sash and fine builders' woodwork. Write Curtis first for complete information on industrial wood sash.

1866  
**CURTIS**  
**WOODWORK**

CURTIS WOODWORK IS SOLD BY  
RELIABLE DEALERS EVERYWHERE



IN-PROJECTING



OUT-PROJECTING

CURTIS COMPANIES SERVICE BUREAU  
Dept. AF-91, Curtis Building, Clinton, Iowa

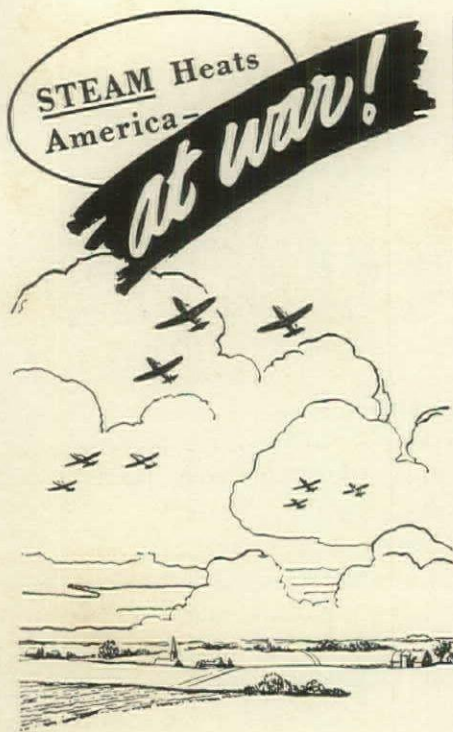
Gentlemen: Please send me complete information about  
Curtis National projected wood sash units for industrial  
building.

Name .....

Address .....

City..... State.....





**L**EAN, savage warbirds . . .

60 thousand in 1942 . . .

125 thousand in 1943 . . .

That is America's promise to the Victory Program—and America is going to beat that promise.

It calls for new construction at record-breaking speeds . . . mile-long bomber plants, the largest in the world.

Heating problems presented by the new building program depend for their solution on the heating lessons learned in peace-time.

Fifty years of experience taught America the practical economy of Webster Systems of Steam Heating. Built around all the natural advantages of steam as a heating medium—flexibility, speed, safety. Used successfully in more than 75,000 buildings.

That is why architects, engineers and heating contractors working on war construction depend on Webster Systems of Steam Heating.

While Ordnance production has the first call on our facilities, we are working day and night to make sure that Webster Steam Heating Equipment is available for use wherever it will help the war effort.

Let our experience serve you now.

Warren Webster & Company, Camden, N. J. Representatives in 65 principal Cities

**Webster**  
Steam Heating

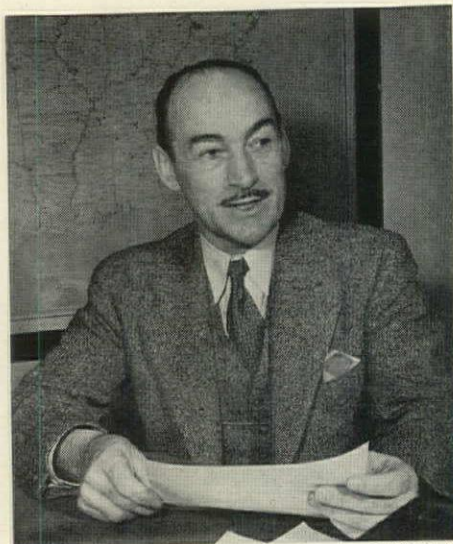
## MONTH IN BUILDING

(Continued from page 184)

15, thus taking the first giant step toward a billeting or "War Guest" program.

**Uphill Work:** Nothing in the Maximum Rent Regulations seemed to make anyone happy at all. Landlords, real-estate men, property owners all complained bitterly that the ceilings failed in many cases to take into account equitable dates for the freeze act and materially increased operating expenditures. Disgruntled tenant and union officials (in Detroit especially) threatened rent strikes if increases in the rent ceiling were allowed. It was a fine case of the squeeze play from all sides on Government's fidgety stand against inflation in the form of rent control.

**Untroubled Waters:** Effect of all this household bickering on the OPA was barely discernible. One spokesman declared that the reaction was "hardly more bitter than anticipated." But when the pressure became too close for comfort Boss Henderson threw out some feelers, declared his office was investigating "in one city the raising of a million-dollar fund," allegedly to be used for pressure to prevent enforcement of rent control. The Shangri-la whose name he failed to mention was Detroit, the fund-raising group the Greater Detroit Property Owners and Taxpayers Association, strong, belligerent, active organization. "Everything Mr. Henderson is quoted as saying is untrue," cautiously declared the unnamed association.



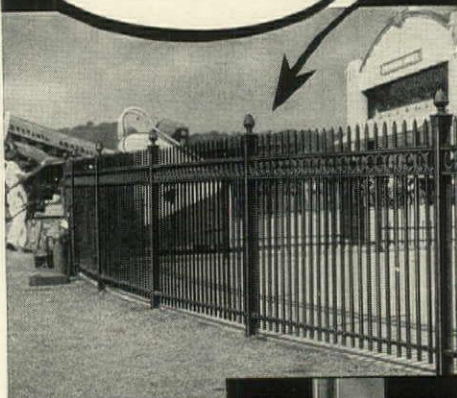
OEM Photo

**KARL BORDERS:** His survey comprehensive

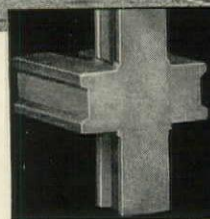
Midmonth found a state of comparative calm descending on the ruffled situation. The National Association of Real Estate Boards assured the OPA officials that realtors throughout the country would cooperate with them to "administer the rent-control law effectively and equitably."

(Continued on page 187)

**LOOK HERE..**  
FOR  
**THE SECRET**  
OF IRON FENCE  
**SUPERIORITY**



*This Type of  
Welded Joint  
is Stronger*



Grooved steel pickets and rails of equal thickness are forced together under heavy pressure and electrically welded at 8 points. Results in a permanent union of great strength and rigidity.

When you specify Iron Picket Fence, include these two important features in your specifications. For they are two specifications that assure a fence which will last for ages, with little or no maintenance cost.

1. Inseparably Welded Joints between Rails and Pickets.
2. Carrying Rails must be the same thickness as the Pickets.

A fence so built does not need ugly cross braces for gates. Nor does it need center supports for its panels. Each panel so constructed will support a distributed load of one ton without showing permanent set. Anchor-Weld Iron Picket Fences meet these specifications. Mail the Coupon below for Catalog and Sample Anchor-Weld (a nice paper weight). No obligation, of course.

**NATION-WIDE SALES AND ERECTING SERVICE**



**ARCHITECTS Mail this Now!**

ANCHOR POST FENCE CO.  
6635 Eastern Ave., Baltimore, Md.

Please send me ( ) Anchor-Weld Iron Fence Manual. ( ) Anchor-Weld Sample Weld. ( ) Name of nearest Anchor Fence Engineer.

Name.....  
Address.....  
City.....State.....



## MONTH IN BUILDING

(Continued from page 186)

Commended by Henderson, the NAREB met with Paul Porter and Karl Borders (see cut, page 148), Director of the Division, to iron out matters of adjustment and appeal.

**Landlord Legalities:** Possibilities of carrying the fight to the courts (FORUM, Aug., p. 100) was realized: in Erie, Pa., a Federal court handed down a decision tacitly confirming the position of the Government agency, restraining Baldwin Bros., landlords of more than 1,000 dwellings, from collecting rents higher than those fixed by the Regulations.

**Practical effect** of the ruling was an alleged slowing up of both market and selling prices of apartment buildings, according to Chicago's Appraisal and Management Service of America, due to fear that operating costs would continue to rise until the owner's profit and equity were seriously impaired.

Another effect equally disturbing to Porter and company, was the wily-landlord racket: the landlord informs his tenant that he is forced to sell his house because he needs funds, then offers to let the tenant stay if he will agree to "buy" the property for a nominal down payment, with stepped-up monthly charges, thus cleverly evading the rent ceiling. Although rumored in the press (*N. Y. Times*, Aug. 20) that the OPA would go so far as to block *all* sales of houses occupied by tenants in order to circumvent fake sales of this kind, no such radical measures are contemplated. Instead the Rent Control Section was drafting regulations to put a stop to such practices, halt now-you-see-it-now-you-don't sales which result only in high rent tricks, no sales.

Subletting, too, raised difficulties not yet solved. Although recently liberalized (the owner now gets a higher return if the tenant has sublet profitably), such rules are difficult to enforce, hard to control.

**Real bone of contention** was, of course, rent-freezing date. Late in the month a representative group of landlords and real-estate owners from 20 cities called on Mr. Henderson with the complaint that "the ceiling dates selected . . . are in practically every instance unfair and unjust . . ."

**Spreading the news:** August 1 saw orders spread to 18 new areas, bringing the total to 94 out of 369 OPA-designated defense-rental areas, and mid-August found OPA clarifying "major capital improvement: structural addition, structural betterment and complete rehabilitation after the maximum rent date" as grounds for petitioning the area-rent director for upward adjustment. September 1 brought 38

(Continued on page 188)

# O.K.'d FOR 96 BATHROOMS!

*Read why this new Ohio housing project chooses Armstrong's durable, washable wall covering . . .*



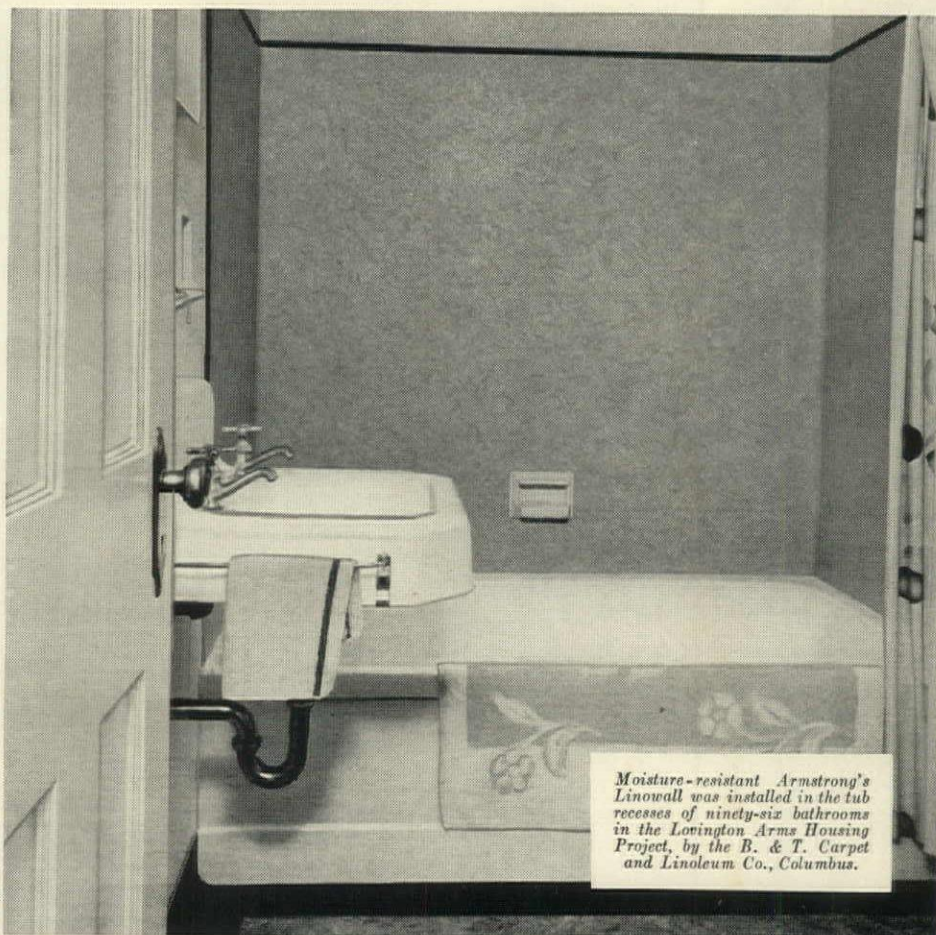
**A** WALL COVERING has to be good to be chosen for a job of this size! It has to be good-looking, practical, economical, and easy to install. And, if it's going to be used around tub recesses, or anywhere else where water is likely to be splashed, it must be highly moisture-resistant as well.

Because Armstrong's Linowall meets all of these requirements, it was the natural choice of General Contractor W. E. Loving, of Columbus, for every one of the ninety-six bathrooms in the Lovington Arms Housing Project, in Fairfield, Ohio.

Linowall is proving—in this and

many other wartime housing projects—that it's an eminently practical wall covering wherever beauty plus permanence is desired. To minimize costs in the Lovington Arms development, it was used to cover tub recesses only.

Armstrong's Linowall is made in a wide variety of colors. It is immediately available—in any quantity—without priority. Why not write for further details—and for a free, color-illustrated booklet on Linowall, before you specify a wall finish on your next job. No obligation. Armstrong Cork Company, Floor Division, 1204 State Street, Lancaster, Pa.

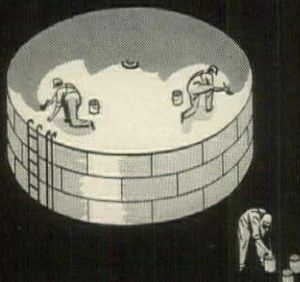


## ARMSTRONG'S LINOWALL

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM AND RESILIENT TILE FLOORS



## When INFRA-RED REFLECTING PAINT IS REQUESTED



### INFRAY\* FILLS THE BILL

Increasing demand for the use of infra-red reflecting camouflage paints on war plants and other defense structures makes it vital that the architect have full information on this new type of paint. Arco INFRAY, the original infra-red reflecting paint, is ready with detailed specifications meeting federal requirements. Write for them today.

\*Trade Mark Reg. U. S. Pat. Off.

**THE ARCO COMPANY**  
CLEVELAND, OHIO • LOS ANGELES, CALIF.

# ARCO

Paints for Industry

## MONTH IN BUILDING

(Continued from page 187)

more areas under Federal control, thus establishing it in the proverbial one-third of the nation.

### WAR GUEST PROGRAM

To bring all housing and billeting short of actual building under one head, NHA created late in the month the Homes Utilization Division, to be headed by Howard Strong, formerly Homes Registration Director. The new Division has a broader scope than its predecessor, will consider every kind of possible housing such as vacant stores, meeting halls, theatres, will continue the registration work, inspect registered rooms, think up schemes for increasing the supply. Mr. Strong reports registration of 800,000 rooms in homes and apartments to date and a total of 55,000 applicants for them. Difficulty, however, is many of the rooms listed as available are in outlying districts.

### GRAND HOTELS IN THE SERVICE

An owner of any of the country's 225 newly-leased to the Army hotels would have wandered into his property bewildered and lost last month. Instead of getting the doorman's usual glad-hand, he would have been ordered gruffly to halt by an M.P. His once-luxurious dining room would be converted to a mess hall; his bridal suites would be lined with cots, doorless, fixtureless, barracks-like.

How did it all happen? The Army, realistic in solving its housing, decided to lease available hotels (less than 2% thus far, according to *Hotel Management*), sent an ex-hotel man now in uniform to survey rooms, facilities, etc., in an area where it was interested in housing troops.

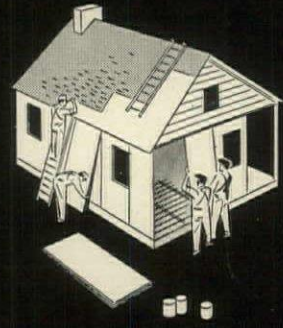
The surveyor keeps an eye out for training space (beaches, fields, parking areas). Finding everything in order arrangements proceed: a flat sum is paid to the owners, based on usual price of a room, and averaging about two-thirds of that price; the Army arranges to take case of interest on mortgages, taxes, to return the hotel in good order after the duration—in reasonable facsimile of its original state.

Management changes usually follow fast. Mess sergeants and K.P.'s take over in the kitchen, ex-hotel men in khaki form the staff. Result is often the unfortunate displacement of old hotel employees in many cases especially hotel managers, restaurant workers, chamber maids, porters, doormen, etc.

More than 25,000 rooms in Miami, Atlantic City, Atlantic Beach, Chicago, are now in Army hands. The owners' attitude? In general not happy, mainly due to this year's great tide of hotel business. A few survey their camp-hotels

(Continued on page 189)

## ARCO PRE-FAB SPEEDS DEFENSE HOUSING



**Speed** is the essence of the production of pre-fabricated sections for defense housing. The prime coat of paint that goes on in the shop may have to be force-dried in less than an hour at 100°. It must be suitable for application by spray, brush or roller. Yet, with a single coat, it must seal and protect plywood and various composition boards against days of exposure to adverse weather. ARCO PRE-FAB SHOPCOAT is that paint—another war-time development of Arco Research.

**THE ARCO COMPANY**  
CLEVELAND, OHIO • LOS ANGELES, CALIF.

# ARCO

Paints for Industry



## MONTH IN BUILDING

(Continued from page 188)

serenely; these are resort-owners, badly hit by gas rationing, rubber shortages. But the probability is that such leasing will increase, the Army having found a sensible, economical method of housing soldiers.

### WAR CASUALTIES

The profession of architecture has suffered keen blows with the advent of World War II. Gone-Away-For-The-Duration signs hang desolately over the once-proud shingles of many members of the profession. Some have gone into service, many have switched to Government work, leaving their private practices represented by a telephone service. What has happened to the others is not entirely clear, but it is certain that they are either occupying berths in other professions or, perhaps less frequently, no discernible berths at all.

An informal but indicative survey conducted by THE FORUM in a few A.I.A. chapters in key cities brought the following figures:

**Los Angeles**, with 150 members, reports 10 in service, 16 (including these ten) have closed their offices, about 12 have gone into war work. (In the Southern California region, with about 750 licensed architects, it is estimated that about 40% have closed their offices at present.)

**Detroit**, with 450 members, has 20 in service, 50 (including these 20) have closed offices.

**Baltimore**, with 80 members, has 15 members in service, 24 offices (including these 15) closed.

**Denver**, with 78 members, 30 in service, 7 more offices closed.

**First Aids:** A large number of the casualties cannot be absorbed into war work, and it is this group for which the A.I.A.'s committee on architectural services, headed by Frederick J. Woodbridge of New York, had a plan: to use these men in planning postwar construction—in advance. Determined to convince public officials of the genuine need for foresighted planning, the A.I.A. saw the responsibility for the plan as resting on the shoulders of every architect who "must share the obligation to see to it that the rebuilding of the world shall be well and carefully planned." A.I.A. decided, at its June convention, to see that the committee's suggestions are presented to appropriate Government officials.

►The Mortgage Bankers Association of America's Frederick P. Champ, expecting to set up a committee to study postwar planning, revealed that in more than 75% of the U.S. cities of more than 25,000 population, planning agencies already

(Continued on page 190)

## Times like these may affect your planning, but — **YOU CAN STILL HAVE KINNEAR DOOR EFFICIENCY!**

You may find priorities, shortages and other wartime restraints taking an active hand in your planning, but you can bank on Kinnear Door efficiency for every opening—on every project. Kinnear Doors are made in many types . . . wood or all-metal . . . with motor, mechanical, or manual control—all featuring smooth, easy, convenient, space-saving *upward action!* And every Kinnear Door is built to individual specifications, ready for quick, accurate, economical installation.



Every time you specify "Kinnear," your judgment is backed by nearly half a century of specialized experience in upward acting doors—widely preferred wherever all-around convenience gets full consideration. (Kinnear originated the interlocking-slat door!) Three widely used Kinnear Doors are shown below. We'll gladly send you the new Kinnear catalog, with full data on the complete line. Write for your copy.



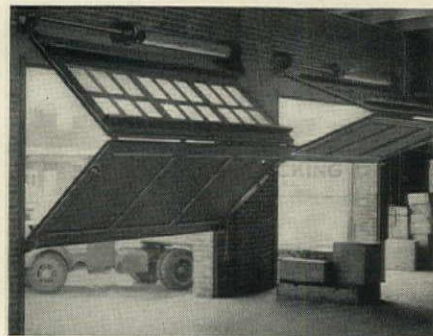
### KINNEAR ROLLING DOORS

Kinnear Rolling Doors save space, and open out of the way, out of reach of damage. The interlocking-slat curtain travels in metal grooves in the jambs, and coils on a barrel above the lintel—much like a window shade. A helical spring encased in the barrel provides an effective counterbalance. Their all-metal construction protects against fire, theft, sabotage, wind, weather, and accidental damage. The curtain is strong, yet flexible enough to absorb impact—many doors installed forty years ago are still in daily service. Slats can be replaced singly or in sections. Available in any size, for face-of-wall or between-jambs installation.

### KINNEAR BIFOLD DOORS

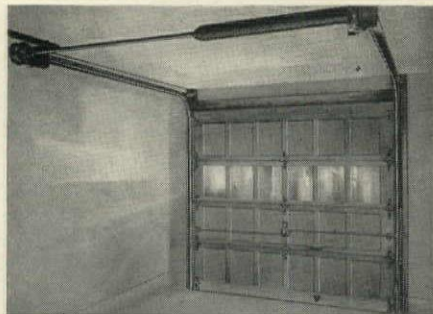
The model illustrated is a rugged, quick-acting door of two sections, hinged horizontally and pivoted from brackets at the upper corners. Torsion-spring counterbalance assures smooth, easy operation. Permits a large sash area. All sizes; wood or all-metal. Motor control available.

Another Kinnear Bifold Door, specially recommended for openings 12 or more feet in height, has a lower section which first "telescopes" with the upper half, or rises parallel to it. The two sections then continue overhead together.



### KINNEAR Rol-TOP DOORS (Wood or all-metal)

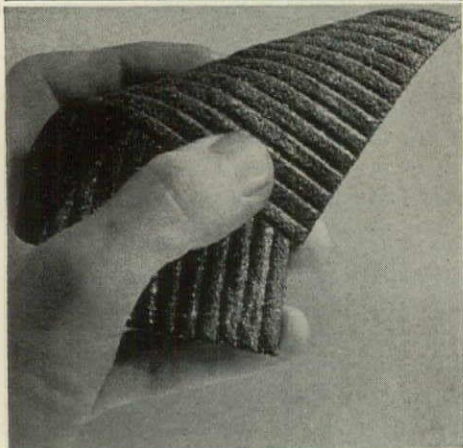
Ideal for residence garages as well as industrial and commercial uses. Composed of several sections, each with any number of sash, and equipped with ball bearing rollers that operate in steel tracks. They rise to a horizontal position overhead. Counterbalanced by one or more springs. A rugged lock and special sealing device makes them weathertight and burglar-tight. Sections can be of any design, in various woods or metals.



**SAVING WAYS  
IN DOORWAYS** **KINNEAR**  
ROLLING DOORS  
The KINNEAR Mfg. Co., 1640-60 Fields Ave., Columbus, Ohio



## NO PRIORITIES NEEDED FOR



# WASCO

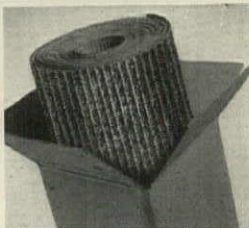
## FABRIC FLASHING

The perfect substitute  
for Metals because  
**WASCO** is:

1. DURABLE
2. FLEXIBLE
3. INEXPENSIVE

## IMMEDIATE SHIPMENTS

Shipped to  
the job in  
handy rolls.  
READY TO IN-  
STALL.



for FREE sample MAIL THIS COUPON

**WASCO FLASHING CO.**  
CAMBRIDGE, MASS. Dept. WF 2

Kindly send FREE sample folder  
on WASCO FABRIC FLASHING.

Name .....

Address .....

City .....

**WASCO FLASHING COMPANY**  
Cambridge, Massachusetts

## MONTH IN BUILDING

(Continued from page 189)

exist, are actively at work.

►Early returns on a FORUM survey of 48 Governors inquiring about establishment of postwar planning agencies indicated that about 1/2 of those replying have already gone seriously to work, more are and have been thinking about it but are hampered by lack of funds, etc. The same letter to 90 Mayors of U.S. cities of more than 100,000 population brought 36 replies—with about the same score as the states.

►Columbia University's conference on Postwar Housing in America heard John B. Pierce Foundation's director, Robert L. Davidson report on the need for "new construction methods in building postwar homes if the lower income group in this country is to be adequately housed," indicate a possible solution to construction doldrums in diverting idle capital and savings to maintain employment in private industry to make it profitable to the country as a whole.

►With touching faith, the New York State Division of Housing and the New York City Housing Authority signed contracts for loan and subsidy of three new housing projects (14,650 persons) to be constructed in Brooklyn, Harlem and the Bronx—after the war. Following on the heels of New York City's adoption of a \$22 million postwar construction program, the State created a State Commission for Postwar Public Works Planning, appropriated \$450,000 for its work. Together with the publication (on September 10) of the Mayor La Guardia's Committee on City Planning's 3-volume study of zoning, population growths, residential areas, public services, expenditures and needed permanent improvements, the three items point to a heartening interest in physical rehabilitation and site planning for the State and city of New York in 194x.

►Los Angeles announced a \$670,084,590 postwar improvement program for itself—to be submitted for City Council's approval.

Chicago's Plan Commission issued a colorful booklet, *Rebuilding Old Chicago*, designed to stimulate operations under the Neighborhood Redevelopment Corporation Law. Illustrating the principles of good neighborhood planning, the Commission worked with actual sites, showed by their use the methods of adapting typical existing conditions to modern site and project planning techniques.

(Continued on page 191)

## Practical way to

# ★ SPEED ★

## WAR WORK

### .. OFFICE or DRAFTING



This label tells you it's checked and  
certified by impartial E. T. L. →

## ..the Wakefield ACE

a Certified FLEUR-O-LIER

When you're planning a new war plant job or converting, consider the ACE in office space. It's tops for critical seeing.

Because the ACE puts 90% of its light directly down on desktop or drafting board . . . to provide high intensity light on the working surface. This makes it an "ace", too, for putting good light in rooms that have ceilings with poor reflecting quality . . . too dark, or broken up by pipes, ducts and beams.

It's smart, trim and functional in design. Adequately louvered, its light is well diffused. Maintenance cost is low. It is easy to clean and relamp. And your clients can be sure of dependable, trouble-free operation, for the ACE is a Certified FLEUR-O-LIER . . . checked and tested by impartial Electrical Testing Laboratories. Write for details or see our catalog in Sweet's.

Fluorescent lighting now calls for specified  
priority ratings. Our experience on this  
is at your service.

THE **WAKEFIELD** BRASS  
F. W. CO.  
92 Forum Park • Vermilion, Ohio



## MONTH IN BUILDING

(Continued from page 190)

Headed by Mayor Edward J. Kelly, and staffed by such men as George T. Horton, Morton Bodfish and T. T. McCrosky, many engineers, city planners and researchers, the Commission stated its hopes that, although its work was seriously hampered by priorities of materials, the redevelopment corporation projects will be granted priority within the framework of the defense housing program. A carefully researched job, the booklet deals specifically with such site sores as:

►Old districts: the U-shaped "blighted area" surrounding Chicago's downtown center.

►New neighborhoods: the North Side's high-density area, the West Side's old and obsolete building area, and the South Side's unfit-for-use housing.

►Concluding with a summary of the elements of good living (large playfields, playlots for pre-school children, shopping centers conveniently located, separation of pedestrian and automobile traffic, etc.) and a graph of the estimated costs and rents, Chicago's Plan Commission looks like a production, active and highly energetic organization bent on organic and far-reaching clearance of many of Chicago's bad spots.

### LIFE IN JULY INDEX

The cost of living, last reported, made upward strides in some items, took some well-needed backward steps in others, stood still in a third:

Food: up 0.8%

Men's Clothing: down 0.1%

Women's Clothing: up 0.1%

Housing: down 0.2% (due to rent control)

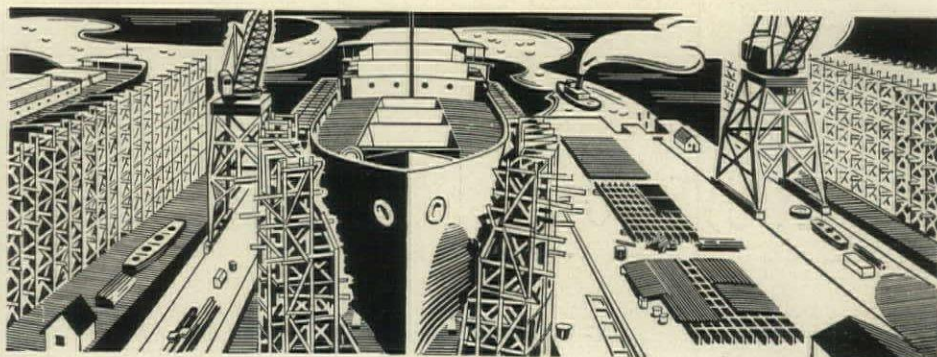
Fuel, light, sundries: unchanged

Total: the cost of living was up 0.2% between June 15 and July 15, according to the National Industrial Conference Board.

### BLACK MARKET BLUES

Slapped hard on both wrists this month was San Francisco's Bank of America, accused by WPB of violating the stop-construction order (L-41) by beginning construction work on two buildings on April 20. Date L-41 went into effect: April 9.

That violators at long last were being cracked down on became obvious when WPB (1) announced that \$5,000,000 worth of construction was now being penalized, (2) named names (one, Herbert C. Huber, Dayton, Ohio) (3) described penalties (complete stoppage of the job, denial of priority assistance on future work) (4) classified the black-market jobs as 95% residential building, 4% commercial construction, 1% agricultural work. Effect: only a morale one (black-list), as most of the building penalized had already been completed.



## It's Speed They Wanted, but Wood Gives Them Long Life Too

**NEW SHIPYARDS** have been able to get into production quickly, thanks in part to the use of wood. The ease with which wood can be worked and erected has simplified and speeded this construction. Wood was available for immediate use; no long waits for scarce materials, badly needed elsewhere for combat equipment.

**WOLMANIZED LUMBER\***, employed in many of these structures, gives them long life. Vacuum-pressure impregnation with a dependable preservative makes this wood highly resistant to decay and termite attack. These ship-building facilities will, therefore, cost less to maintain.

**SERVICE RECORDS** covering a period of over fifteen years and installations of millions of feet of Wolmanized Lumber prove the economy of building with this long-lived wood. Investigations in industry's truly tough spots have shown that renewals because of decay have run less than 0.2%.

**WARTIME STRUCTURES** built of Wolmanized Lumber will be available for peacetime use. First costs are little more than where ordinary wood is used, and lower upkeep expense will simplify postwar financing. If you want information on how and where to use Wolmanized Lumber, write American Lumber & Treating Company, 1647 McCormick Building, Chicago, Illinois.

\*Registered Trade Mark

## WOLMANIZED LUMBER





## small HOUSE LOGIC



Small homes are BUSY homes. Every room is lived in every day—and lived in HARD. Planning must be practical as well as pleasing—construction must be sturdy—materials must have guts—so Small Homes can take it. Decoration can no longer be an “incidental.” It, too, must be planned—must be specified to take it day after day, year after year, at minimum upkeep and redecoration expense.

That's where Wall-Tex Fabric Wall Coverings come in. Wall-Tex is good-looking



Repeatedly washable — looks like new.



Controls cracks — splendid decoration over wallboards.

decoration. It has the stuff to take it—from kitchen and bathroom grease and moisture—from busy-living in every other room. It is tough. Its wall-canvas base sticks and holds and reinforces. It controls cracks—resists scuffing. Its hard surface (though beautiful) resists dust and grime and finger marks. It can be washed repeatedly with soap and water.

Wall-Tex patterns and colors are modern, handsome and popular with owners and tenants, and known to them through years of consistent national advertising.

Isn't Wall-Tex indeed the logical specification for small homes TODAY and in 194X?

USE THE COUPON—GET COMPLETE FILE FOLDER  
Use coupon for special file portfolio compiled to give Architects, Contractors samples and complete Wall-Tex data.

# WALL·TEX

DECORATIVE WALL CANVAS

Columbus Coated Fabrics Corporation  
Dept. AF-92, Columbus, Ohio

Send your building and architectural data file and swatches of Wall-Tex to—

Name .....

Address .....

WRITE FOR COMPLETE FILE FOLDER

## FORUM OF EVENTS

(Continued from page 10)

### ANNOUNCEMENTS

In 1939 the Westinghouse Electric & Manufacturing Company founded at Mellon Institute an industrial fellowship to conduct research on plastics, especially synthetic resins, for constructional purposes. The basic research program has now been completed. Subsequent work of the fellowship will be done by two specialists, H. Ross Strohecker and William B. Johnston, the Westinghouse organization announces. Mr. Strohecker will do research on the physical technology of plastics, Mr. Johnston on chemical processing.

### AWARDS

To SUREN PILAFIAN, first place in a competition to select an architect for a students' center building at Wayne University, Detroit, Michigan. Eleven architects participated in the competition, and Mr. Pilafian's plans were chosen chiefly because of “excellent qualities of planning.” Mr. Pilafian is a resident of Detroit, and is now working for Shreve, Lamb and Harmon in New York City.

Second place was awarded to the designs of ELIEL and EERO SAARINEN and J. ROBERT F. SWANSON, third place to MALCOLM R. STIRTON of Detroit, Mich.

### EDUCATIONAL

The Cranbrook Academy of Art, Bloomfield Hills, Mich. announces that it has a few scholarships available for “mature and draft exempt architects who wish to study civic design” under the direction of Eliel Saarinen, president and director of the Department of Architecture and Design at the Academy. Information regarding these scholarships can be obtained from Richard P. Raseman, executive secretary of the Academy.

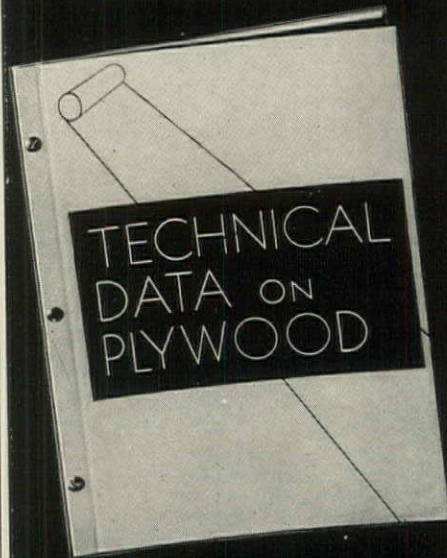
Two reports from Summer Sessions on postwar conditions:

►At Mills College, California, Catherine Bauer, housing expert teaching Housing Planning, declared that “the west coast of the United States and California in particular will be more affected by postwar conditions than any other part of the country.” . . . that “the frequently voiced fear of what may happen after the war is in itself a hopeful sign . . . it suggests that we are already thinking and preparing to do something about those problems.” Miss Bauer also said that “there is always agreement on the point that some planned housing is imperative and inevitable” . . . that “cooperative housing is the ideal,” and that “the day of skyscraper construction which flourished in the speculative '20's is probably gone forever.”

►At Columbia University Fine Arts Department, Dr. Emerson H. Swift declared that “a golden age of American art will

(Continued on page 194)

Your file should  
contain this  
new handbook!



Write for your  
free copy today!

JUST published are the initial chapters of a new engineering handbook on Douglas Fir Plywood. This is the first time that much of the data on the mechanical properties of Douglas Fir Plywood contained in them has been available to the architect and engineer. You will find that this data will make your designing, specifying and working with plywood easier than ever before.

This handbook is in loose-leaf form, and additional chapters will be sent you as they are completed. Write now for your free copy of “Technical Data on Plywood”. Douglas Fir Plywood Association, Tacoma, Washington.

## DOUGLAS FIR PLYWOOD

Real Lumber  
MADE LARGER, LIGHTER  
SPLIT-PROOF  
STRONGER

“A PRODUCT OF AMERICA'S ETERNALLY  
REPLENISHING FORESTS”



**TO EXECUTIVES:**

**NOW YOU CAN HELP**

*Even More...*

**New Treasury Ruling Permits Purchases  
UP TO \$100,000, in any Calendar Year, of  
Series F and G WAR BONDS!**



The Treasury's decision to increase the limitations on the F and G Bonds resulted from numerous requests by purchasers who asked the opportunity to put more money into the war program.

This is not a new Bond issue and not a new series of War Bonds. Thousands of individuals, corporations, labor unions, and other organizations have this year already purchased \$50,000 of Series F and G Bonds, the old limit. Under the new regulations, however, these Bond holders will be permitted to make additional purchases of \$50,000 in the remaining months of the year. The new limitation on holdings of \$100,000 in any one calendar year in either Series F or G, or in both series combined, is on the cost price, not on the maturity value.

Series F and G Bonds are intended primarily for larger investors and may be registered in the names of fiduciaries, corporations, labor unions and other groups, as well as in the names of individuals.

The Series F Bond is a 12-year appreciation Bond, issued on a discount basis at 74 percent of maturity value. If held to maturity, 12 years from the date of issue, the Bond draws interest equivalent to 2.53 percent a year; computed on the purchase price, compounded semiannually.

The Series G Bond is a 12-year current income Bond issued at par, and draws interest of 2.5 percent a year, paid semiannually by Treasury check.

Don't delay—your "fighting dollars" are needed *now*. Your bank or post office has full details.

Save With . . .



**War Savings Bonds**

This space is a contribution to America's All-Out War Program by Architectural Forum



## FORUM OF EVENTS

(Continued from page 192)

flourish in the postwar period."

At the suggestion of the Office of Civilian Defense and the Army Engineer Board, New York University College of Engineering has instituted an intensive course in Industrial Camouflage under the direction of Professor William A. Rose.

Yale University will offer a course in camouflage under the auspices of the Department of Architecture at the suggestion of the Office of Civilian Defense in Washington, to begin September 8. Running two evenings a week for eight weeks, the course will be open to architects, engineers, industrial designers, plant superintendents and managers. A fee of \$25 will be charged; enrollment will be limited.

### DIED

ALFRED CHARLES CLAS, 82, architect, in Milwaukee. One of the city's foremost architects, Mr. Clas was associated with James Douglas and then with George B. Ferry, designed the Milwaukee Auditorium, the Public Library and Museum and other important civic buildings.

JES JESSEN DALL, Jr., 47, architect, in Tampa, Fla. A graduate of the College of Architecture of Cornell University, Mr. Dall was president of the J. Dall Jr. Construction Company at Ithaca, N. Y.

THOMAS M. JAMES, 68, architect, in Boston, Mass. Founder and former president of the Thomas M. James Company, architectural engineers, Mr. James specialized in bank buildings, and drew up the plans for the Union Trust Company building in Boston and the Shubert Theatre.

EDWARD A. MILLER, 89, engineer, in New Rochelle, N. Y. Mr. Miller was chief engineer of the Department of Parks, City of New York, from 1898-1920; it was under his direction that Riverside Drive, Manhattan, was improved, and Central Park was modernized.

BARNET PHILLIPS, 65, designer, in New York City. Associated with architects in the decoration of many important buildings in New York City, Mr. Phillips was president of the Barnet Phillips Company, and had been in the interior decorating field for more than twenty-five years.

E. DONALD ROBB, 62, architect, in Boston, Mass. Designer of many churches, Mr. Robb was an authority on iconography and was responsible for the dollar sign carved over the Bride's Door of St. Thomas' Church in New York City which caused a furore in the congregation more than twenty years ago.

MILTON T. THOMPSON, 72, civil and electrical engineer, in Upper Montclair, N. J. Mr. Thompson went to Russia in 1926 as field director of American consultation for the Dnieprostroy dam.



## — BUT YOU CAN EASILY PROTECT VITAL WAR PRODUCTION!

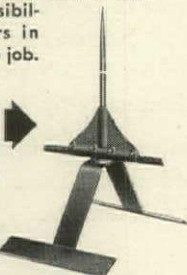
★ AN IMPORTANT consideration today is adequate protection of vital war production against hazards of accident and sabotage. The air raids Nature makes with lightning—which can act like either an incendiary bomb or a demolition bomb—can easily be prevented from causing disastrous loss and delay.

West Dodd Lightning Protection and static control equipment is being widely used on Army Ordnance Plants for that reason. It is helping safeguard ammunition loading lines, standard magazines, underground magazines, and bag loading buildings. Many important industrial plants have equipped their power stacks with West Dodd protection.

### WEST DODD PLUS FACTORS

The 12 old line manufacturers, including the famous Dodd & Struthers Company, pioneers of modern approved lightning protection, are consolidated in West Dodd. This wealth of experience in building and installing lightning protection, and a long proved record of responsibility, are two plus factors in choosing West Dodd for the job.

The West Dodd end aerial, complete. In center is the exclusive West Dodd cable and point connector. It eliminates sharp bends formerly necessary to bond aerial and conductor. Quicker to install. Eliminates a number of connectors. Simplicity adds to efficiency and longer life. Cuts installation time, saves labor costs while aiming at more lasting, thorough protection.



**WEST DODD**  
LIGHTNING CONDUCTOR CORP.

A RELIABLE PROTECTION AGAINST  
A LEADING CAUSE OF FIRE



GOSHEN, INDIANA

## JOHN V RANGE

★ KITCHEN  
★ ENGINEERING  
★ SERVICE

---for architects handling  
priority projects

Ever since this country entered its defense program we have been working 100% with Government authorities and their architects on priority projects. We are familiar with matters of priorities and we know from daily contacts what can be and what cannot be specified. We enjoy cordial relations with the many building trades whose well-timed cooperation enables us to meet the closest time schedules.

If you have on your boards or in prospect any defense projects that require facilities for preparing and serving food to the armed forces or to essential industrial workers, send us your blue prints. We will relieve you of all detailing of this important and highly specialized work.

Beginning with your basic architectural plan we can make complete layouts of all food service departments; we design and manufacture the required equipment and supervise its installation, complete and ready for service.

★

Our Kitchen Engineering Service is available to architects without charge or obligation.

**The John Van Range Co.**  
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

Branches in Principal Cities

328 EGGLESTON AVE., CINCINNATI, O.





# "The boys here call it the **FOURTH SHIFT!**" ..you'll assure it when you specify **FLEUR-O-LIERS**

When you define fluorescent lighting with FLEUR-O-LIERS in terms of better, faster seeing—more accurate work—spoilage reduced—production speeded and manhours saved—the phrase "fourth shift" has a real significance.



Fixtures bearing this FLEUR-O-LIER label assure your customers maximum use of your lamps—plus electrical and mechanical dependability. That's important these days when every minute counts—and equipment *must* stand up!



And here's the reason. Though nearly 50 independent fixture manufacturers make FLEUR-O-LIERS, they all make them to 50 definite specifications set up by the makers of MAZDA Lamps. And FLEUR-O-LIERS meet these specifications as tested and certified by impartial Electrical Testing Laboratories.

A vital tool in wartime production, fluorescent fixtures now require a suitable WPB priority rating. Any of the FLEUR-O-LIER Manufacturers will be glad to work with you on this to get the best lighting possible.

## DEPENDABILITY COUNTS! See why it pays to specify FLEUR-O-LIERS

- Certified ballasts and starters...assuring balanced, economical operation—most light from your lamps—high power factor (over 85%).
- Durability and Safety
- Ease of maintenance
- Maximum light output
- Flicker correction (on two-lamp circuits).
- Correct ventilation
- Every unit carries the FLEUR-O-LIER Manufacturers' Guarantee.

## FLEUR-O-LIERS CERTIFIED FIXTURES FOR FLUORESCENT LIGHTING

Participation in the FLEUR-O-LIER MANUFACTURERS' program is open to any manufacturer who complies with FLEUR-O-LIER requirements

Fleur-O-Lier Manufacturers, 2119-9 Keith Bldg., Cleveland, O.  
Please send me FREE new booklet "50 Standards for Satisfaction," together with list of Fleur-O-Lier manufacturers.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



## BOOKS

(Continued from page 16)

few if any writers to date have done a better job. The examples are extremely well chosen, and the logic of his assertions would be difficult to refute. Where criticisms of buildings are made, the approach is objective, and the effects are occasionally devastating. In many instances the illustrations have been selected to tell a story without further need for text.

By withdrawing from the customary pro-

fessional isolation and addressing himself direct to the public, Mr. Lescaze has not only created an opportunity to make himself and his work better known, but he has rendered the entire profession a service by making its activities more intelligible to a group of potential clients. The architect who still counts on selling Georgian for schools and Gothic for churches will not concur in this estimate.

The most remarkable feature of the book, or more accurately, its most unexpected feature, is the thoroughly good writing job that has been done. Conversational in tone and fast-moving, it is an unusually successful treatment of a complicated set of facts and ideas. Mr. Les-

caze, in his enthusiasm for his profession, would probably attribute this to the training of the modern architect to solve any problem, however new and unfamiliar.

**VINCENT VAN GOGH, A Bibliography**, by Charles M. Brooks, Jr. The Museum of Modern Art, New York. 58 pp., 7 $\frac{3}{4}$ x10 $\frac{1}{4}$ . \$2.75.

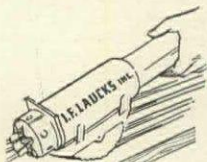
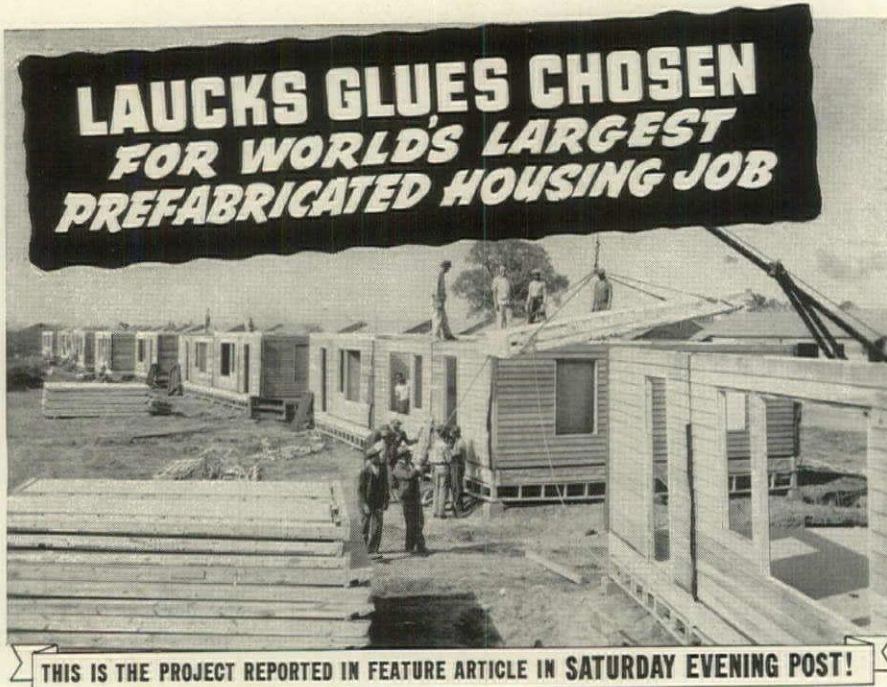
This bibliography contains some 700 items, of which about 50 are published letters and articles by van Gogh and the remainder literature dealing with his life and work. The number of items listed, the many languages in which they have been published, and their extreme diversity all bear witness to the remarkable hold on the popular imagination van Gogh's life and work have had. The author of this valuable bibliography is Assistant Professor of Art and Architecture at Scripps College and the owner of the most extensive collection of van Gogh books in America.

**MODERN BUILDING INSPECTION**, by Clyde N. Dirlam and Harold P. Huls and technical collaborators. R. G. Colling and Associates, Los Angeles. 404 pp., illustrated. 6 $\frac{1}{4}$ x9 $\frac{1}{4}$ . \$5.

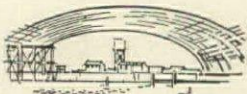
This "building inspector's handbook" was prepared by the chief building inspector and the city attorney of Los Angeles, with the collaboration of the chief of the building codes section of the Department of Commerce, the Pasadena superintendent of building, and two structural engineers. It is a very comprehensive manual, covering forms, fees, inspection, plan checking, building department organization, public relations for the building inspector, etc. An entire section of the book deals with structural engineering for the building inspector while another very valuable part covers legal problems which arise in connection with the enforcement of codes. Also discussed are zoning regulations and their relation to building department operations, condemnation of substandard structures, and the legal responsibility of the building inspector. One of the most interesting parts of the book deals with suggested ordinances covering a great variety of problems, such as smoke control, minimum requirements for dwelling houses, and regulation of trailer camps. The book also contains a very comprehensive bibliography (over 40 pages) listing a great variety of published material which might be useful to the building inspector. Since these publications deal with materials, construction and protection of structures from earthquake, termites, etc., the list should be equally valuable to architects and engineers.

**PROCEDURE HANDBOOK OF ARC WELDING DESIGN AND PRACTICE**. The Lincoln Electric Company. 1267 pp., illustrated with photographs and diagrams. 6 $\frac{1}{4}$ x8 $\frac{3}{4}$ . \$1.50. The latest edition of this very comprehensive manual for the engineer, designer

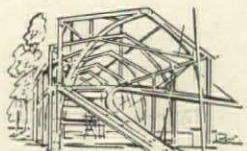
(Continued on page 198)



100 LAUCKS GLUE GUNS WERE USED ON THE PORTSMOUTH PROJECT



WOOD AND LAUCKS GLUE LAMINATED ARCHES FOR ARMY HANGAR



LAUCKS GLUE LAMINATED ARCHES FOR U. S. ARMY CHAPEL

**B**UILDING MODERN WARTIME houses calls for shortcuts in construction. Laucks Glues provided one of those time-saving, money-saving shortcuts at the mammoth Portsmouth, Virginia, Housing Project.

Barrett and Hilp, contractors, used 199,000 pounds of Laucks Construction Glue on the 5000 homes. This glue was used to affix the Homasote panels and plywood wallboard to the framing members—speedily and economically.

Investigate how Laucks Construction Glues can save time, money and critical materials on *your* jobs—in laminated arches or beams, in prefabricated and all types of dri-built construction with plywood and wallboard, in farm structures, etc.

For information, write Laucks, where 20 years' laboratory research and practical experience guarantee the right use of the right glue.

**I. F. LAUCKS, Inc.**

\*Seattle—911 Western Ave. Chicago—6 No. Michigan Ave.

\*Los Angeles—859 E. 60th Street

\*Portsmouth, Va.—Commerce and Broad Sts.

\*I. F. Laucks, Ltd.—Granville Island, Vancouver, B. C.

\*FACTORY LOCATIONS. ALSO AT LOCKPORT, N. Y.

Don't forget, LAUX REZ, the pioneer resin sealer and primer, protects wood as rust-proofing protects metal.



**LAUCKS CONSTRUCTION GLUES**  
Consult LAUCKS—America's Glue Headquarters



# What!!

## -WOOD BATHROOM CABINETS... ...MADE BY MIAMI-CAREY?

*That's right-*

Miami

Wood Cabinets are here! And they're the finest, most complete wood cabinets ever produced.

Miami introduced the complete *steel* bathroom cabinet, and for nearly a quarter century they've been the recognized leaders of the industry. But steel has gone to war. Meanwhile, Miami is producing the handsome wartime wood cabinets illustrated.

True to the Miami-Carey tradition, these cabinets are complete in every detail — no doors to hang and fit; no hardware to buy and fit; no mirrors to hang; no painting to do; no shelves to make — even the four installing screws are furnished.

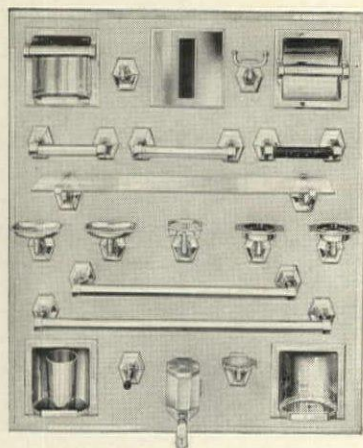
Frame around mirrors is STEEL (by permission of War Production Board), finished to match the cabinet — construction that guarantees a door that will FIT and not warp, shrink or swell.

Whatever your cabinet requirements, you may continue to specify MIAMI with every assurance that these new cabinets will prove worthy of the name. Write Dept. AF for complete details.

**MIAMI CABINET DIVISION**  
**THE PHILIP CAREY MFG. COMPANY**  
*Dependable Products Since 1873*  
**MIDDLETOWN, OHIO**

### COLONIAL ACCESSORIES

Available for immediate shipment. Both recessed and projection types. Made of durable Zamac metal, chromium plated.

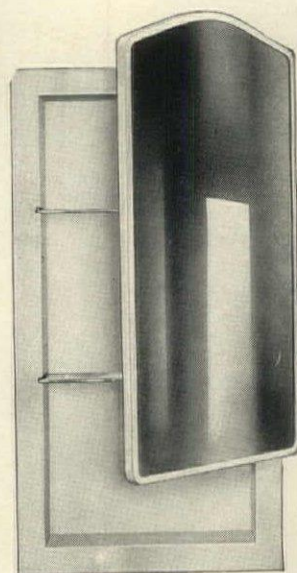
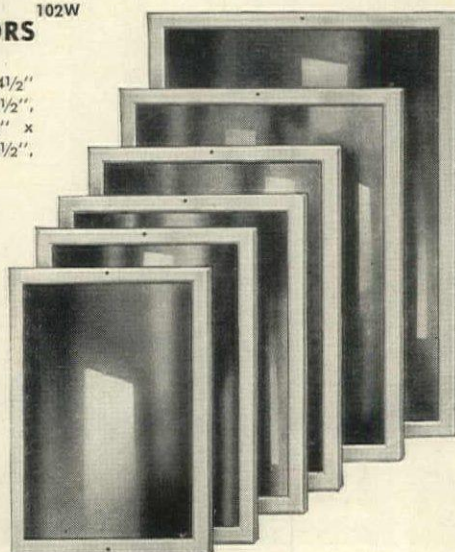


### MIAMI MIRRORS

in six sizes:

Overall dimensions 14 1/2" x 20 1/2", 16 1/2" x 22 1/2", 18 1/2" x 22 1/2", 18 1/2" x 24 1/2", 20 1/2" x 26 1/2", 22 1/2" x 30 1/2".

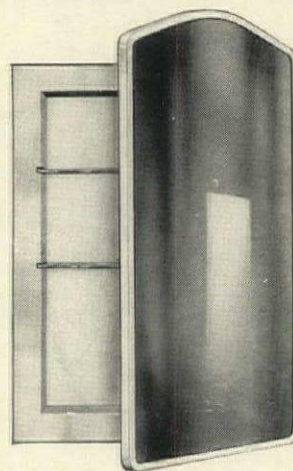
Mirrors are #1 plate glass; backs of Carey Utilizit board; hardwood frames finished in three coats of baked-on white enamel.



103W

Model 102W Model 103W

Kiln dried hardwood; joints double locked glued and tenoned; door back, moisture proof composition board; steel mirror frame; finish, three coats baked-on white enamel. Equipment: two glass shelves; bar type door stop; stainless-steel door strike; bullet door catch.



102W

**MIAMI Metal BATHROOM CABINETS**  
*Available for IMMEDIATE SHIPMENT*



## BOOKS

(Continued from page 196)

and operator. While the bulk of the material is directed to other fields than those normally covered by the architect, there is a great deal of data on the designing of arc welded structures. The book is profusely illustrated with photographs showing the enormous scope of welding operations at the present time.

**FLUORESCENT LIGHTING MANUAL**, by Charles L. Amick. McGraw-Hill Book

Company, New York. 277 pp., illustrated. 6x9. \$3.

A practical manual for this new field of illumination, written in fairly non-technical language. The author is with the engineering department of the General Electric Company. The information given covers the construction and performance of all available types of fluorescent lamps, the calculation of illuminating requirements and design of luminaires and methods of installation. There is also data on the maintenance and repair of fluorescent installations. The discussion of color quality, which treats the subject in considerable detail, will be particularly

useful to the designer of residences and shops, for the wide range of colors available brings new problems along with the new possibilities.

**PAINTING MATERIALS**, A Short Encyclopaedia, by Rutherford J. Gettens and George L. Stout. D. Van Nostrand Company, Inc., New York. 333 pp., 6½x9½. \$3.75.

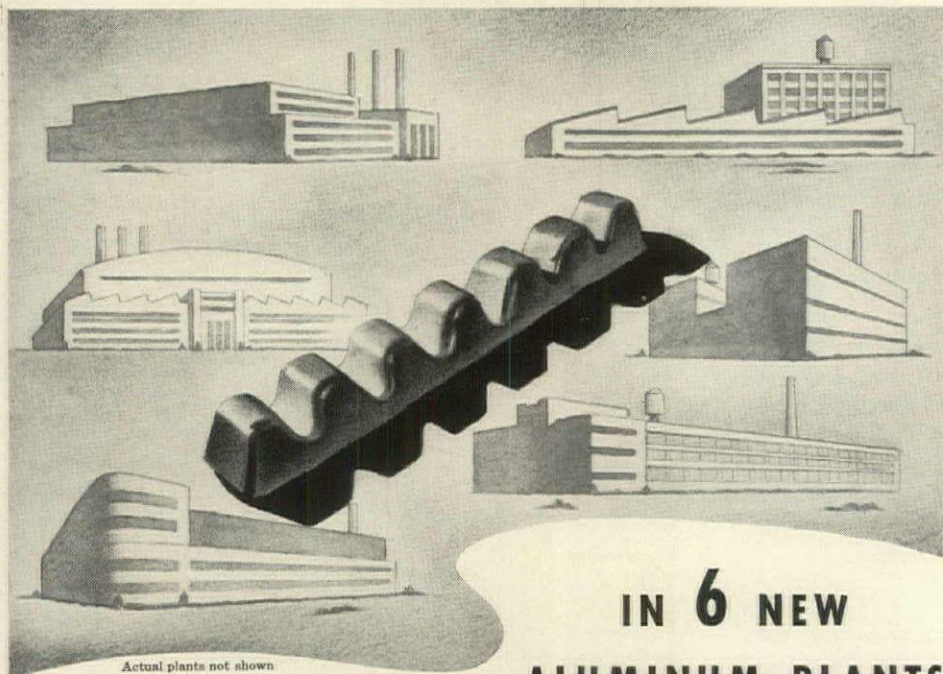
For a number of years the Fogg Museum's Department of Conservation has been carrying on studies of the materials and processes of painting. Use of infra-red, ultra-violet and x-rays, in addition to chemical and microscopic examinations, has produced a substantial body of knowledge which could be as useful to the painter of today as to the expert who must decide between an original and a forgery. This book was compiled chiefly as an aid to the former. Material is arranged in five main sections, dealing with mediums, adhesives and film substances, pigments, solvents and detergents, supports, and tools and equipment. In each section the information is presented alphabetically. There is also a glossary to clarify technical terms used in the text.

**PLASTICS**, by J. H. Dubois. American Technical Society, Chicago. 295 pp., illustrated. 5½x8¼. \$3.

An excellent general survey of a tremendously important new field. The book covers the history, origin and raw material sources of plastics, their various properties and limitations, methods of fabrication and essential information concerning their design. Discussion of materials is particularly complete, covering the phenolics, ureas, cellulose, acrylic vinyl and styrene, cast phenolic and protein plastics, mycalex, nylon, lignin and others. Arrangement of the information makes possible its use for reference and as a school text book. Illustrations show a variety of products and production machinery.

**TECHNIQUE OF PLYWOOD**, by Charles B. Norris. I. F. Laucks, Inc., Seattle. 249 pp., illustrated with charts and diagrams. 4½x7½. \$2.50.

This book brings together in convenient reference form a series of articles published a few years back. The publishers, well-known manufacturers of plywood glues, have assembled the information because of the critical importance of plywood at the present time in construction and in industry. The first section of the book, dealing with plywood sheets in stressed skin coverings, will be particularly useful to airplane engineers. The second section, presenting a two-dimensional elastic theory of wood and plywood, will be of value to the same group. The remaining three sections discuss the manufacture, warpage, bending and molding of plywood.



Actual plants not shown

## IN 6 NEW ALUMINUM PLANTS *Fixtures by* **ELJER**

We are proud to announce that six new Aluminum plants are being equipped with Eljer fixtures. We consider this a high tribute to the quality of our line as well as to our ability to meet wartime production schedules.

ELJER CO. • FORD CITY, PA.

*Write for our Condensed Catalog*



THERE ARE OVER 5 MILLION ELJER FIXTURES IN USE



# Engineered Timber Construction

**Progressively Does Bigger Jobs**

*Better . . . Faster . . . Economically!*

**Today**, progressive development in timber construction gives architect, engineer and builder new structural members to work with—structural members that are lighter, stronger, easier and faster to erect.

**Originally** timber construction was limited to the use of heavy solid wood members and joined with steel bolts, gusset plates and rods.

**Teco Timber Connectors** provided a better means of joining wood members by taking advantage of 80% and more of the working strength of lumber and steel. One pound of Teco connectors replaces 11½ to 12 pounds of the old style steel gusset plates, bolts and rods. Factory made Teco-connected trusses can be purchased as complete units, or knocked-down for easy assembly and ready erection.

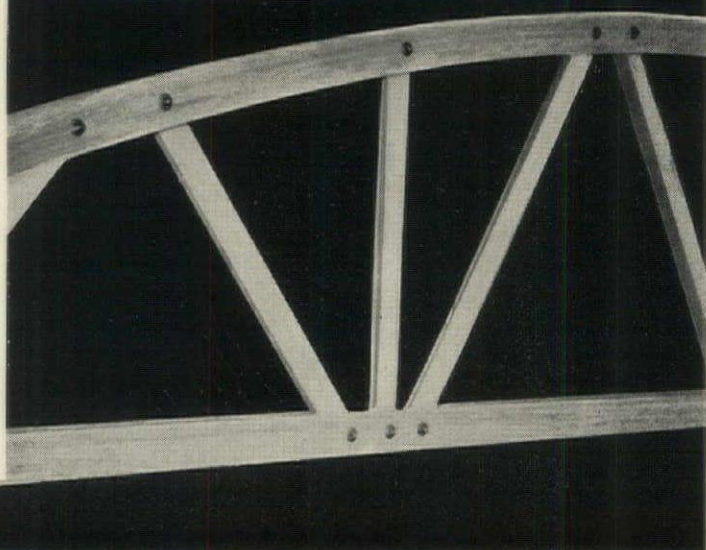
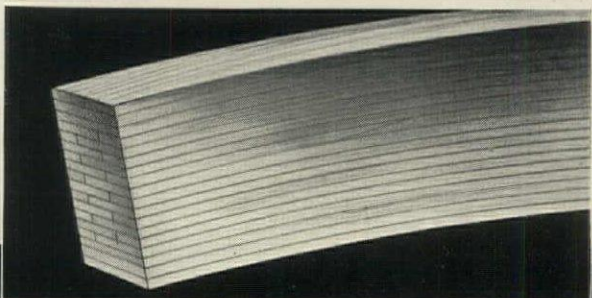
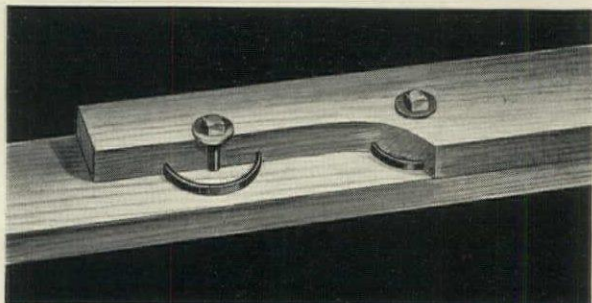
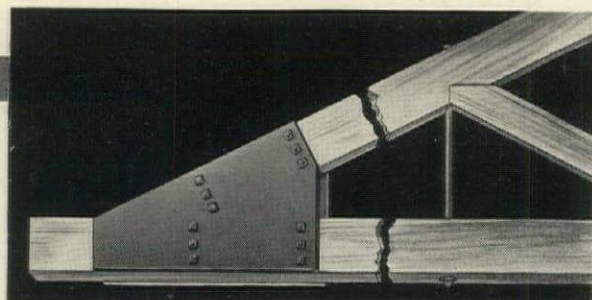
**Glued Laminated Structural Members** further extend the scope and usefulness of lumber. Now specially selected lumber, through scientific drying and the miracle of modern glues can be bonded and formed into a variety of architectural shapes and types of structural members. Glued laminated arches, trusses and beams are engineered and manufactured to meet the most rigid specifications of U. S. Army and Navy projects and building codes.

**Combining Teco Timber Connectors and Glued Lamination** is the newest development in engineered structures of wood. Now vast spans of post-free, brace-free construction are available for almost any type of structure. Engineered Timber Construction is doing today's building jobs faster and economically. Complete data on glued laminated arches, beams, trusses and Teco-connected members is available.

**WEYERHAEUSER SALES CO.**

First National Bank Building • Saint Paul, Minn.

Copyright 1942, Weyerhaeuser Sales Company





## Building Reporter

(Continued from page 14)

3 or 4 hours decal film will be set. Many times faster than painting, no special skill is required to apply. Decals fit any size window, and there is no waste since edges can be overlapped. Black surface on outside of window is dull, non-reflecting; inside surface is white, cheerful. Impervious to extreme temperature changes, rain, snow, sleet, etc. Can be removed with a razor blade. Complete application instructions as well as horizontal and vertical cut-

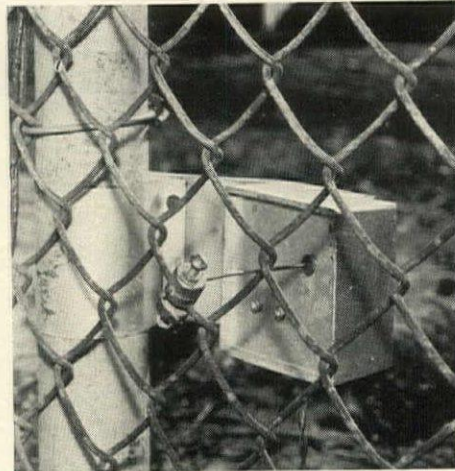
ting lines are printed on reverse side of each decal; squeegee furnished with every order. Cost: 50 cents per sheet.  
*Manufacturer:* The Meyercord Co., 5323 West Lake St., Chicago, Ill.

**SABOTAGE PROTECTION.** Mechanical guardman for plant areas.

*Name:* Telectron Interceptor Fence Detector System.

*Purpose:* To give both visible and audible signals at a central control station when anyone attempts to trespass over, under or through a fence.

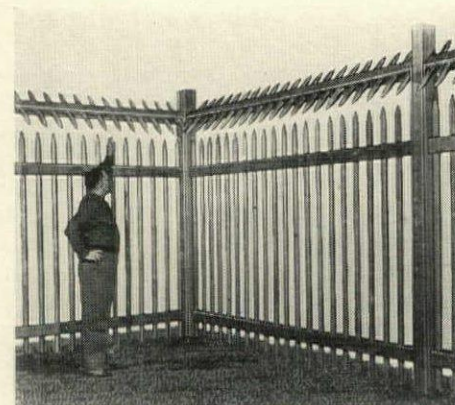
*Features:* Business parts are compact "vibration pickups" attached to the fence. 50 ft. apart, and connected to amplifiers



which screen out vibrations caused by winds, birds' alighting and other minor disturbances, but pass along vibrations caused by trespassers. A red light and a bell indicate not only a trespass, but the exact location along the fence. A blue light and a bell of different tone indicate that the system has been tampered with. Further details are withheld from publication at the request of the U. S. Army. Average cost approximates 75 cents per running ft. of fence, installed.

*Manufacturer:* Telectron Engineering Co., 381 West 38th St., Los Angeles, Calif.

**WOOD FENCING** developed for industrial plant protection.



*Name:* Industrial Wood Fence.

*Purpose:* To substitute for WPB-restricted steel fencing.

*Features:* Sturdy in construction, this pinch-hitter weighs 20.4 lbs. a lineal ft. It has the Army Engineering Corps' approval.

*Manufacturer:* Rock Island Sash & Door Works, Rock Island, Ill.

**UNDERFLOOR.** Resilient and impervious to moisture.

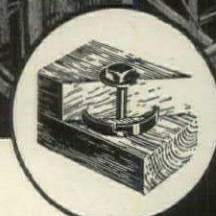
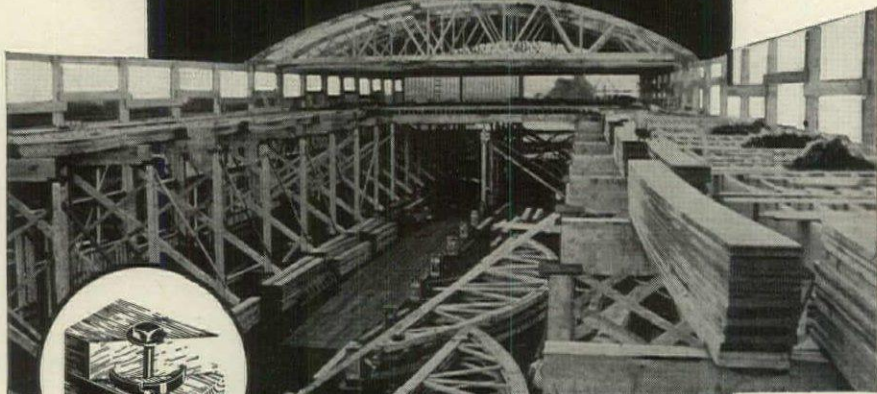
*Name:* Keystone Board.

*Purpose:* For use as an underlay with linoleum and other composition flooring.

*Features:* Composed of a high melting point asphalt in combination with fine mineral aggregate, sealed between dry non-bleeding liners to provide a waterproof, rigid, non-warping board. Available in thicknesses ranging from .06 to

(Continued on page 202)

# DELIVERED IN 6 DAYS



The TECO Ring Connector spreads the load on a timber joint over practically the entire cross-section of the wood... brings the full structural strength of lumber into play.

The 21 timber roof trusses—80' span—used in this mold loft at a modern shipyard, were framed, assembled, and delivered ready-to-erect in 6 working days after final lumber delivery.

Speedy and efficient construction of buildings ranging from small storage sheds to giant mold lofts, like this, is assured through use of the TECO Connector System of Timber Construction and a new engineering service offered to users of wood.

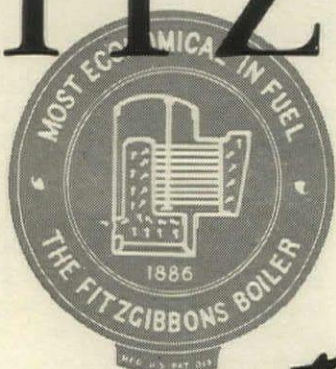
## Timber ENGINEERING COMPANY

WASHINGTON, D. C.

PORTLAND, ORE.



# FITZGIBBONS



## *The PRODUCT and the COMPANY*

*Strength—*

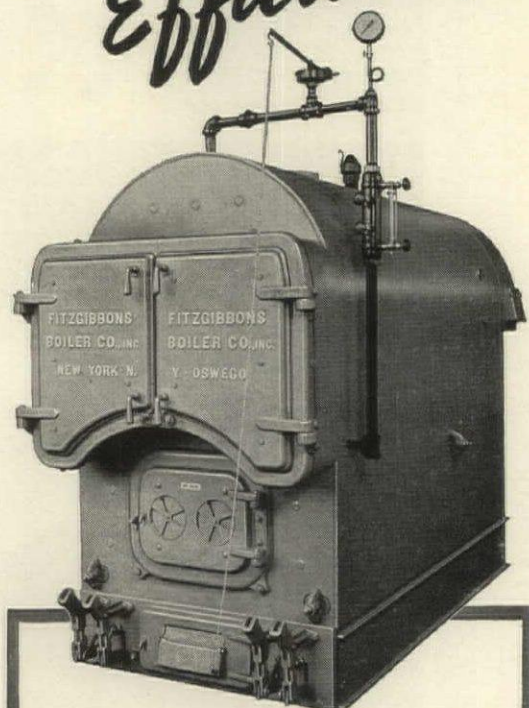
Boilers fabricated of steel — designed to take fullest advantage of the enduring toughness which only steel possesses. Electrically welded, stayed and braced as long years of boilermaking experience dictate. Produced by an organization which is itself an outstanding example of industrial strength among American manufacturers.

*Durability—*

A quality for which Fitzgibbons Steel Boilers are well known, maintained by a rigid system of inspection which permits of no compromise, working in full accord with Hartford Inspection and the A.S.M.E. Code. Behind this, a company which has demonstrated in its fifty-six years of continuous operation and successful growth, a standard of organizational durability possessed by comparatively few industrials.

*Efficiency—*

Developed through correct proportioning of heating surface to absorb the largest volume of B.t.u.'s. Aided by design which sets up maximum water circulation to effect the quick steaming performance characteristic of Fitzgibbons Steel Boilers. Supported by efficiency in the organization, due to generations of experience in knowing how to organize most effectively, how to select key men, how to give their skill fullest scope.



### THE FITZGIBBONS "D" TYPE STEEL BOILER

Built in types for any fuel, any kind of heating system, in a range of sizes from 2200 to 42,500 sq. ft. Steam rating, S.H.B.I. A rear smoke outlet firebox boiler with exceptionally long flue travel assuring greatest possible fuel economies.

As with all American front-line manufacturers, the facilities of Fitzgibbons are today going all-out for war. But heat is a war need too, and frequent trainloads of Fitzgibbons Built Products leave our plant for service under the American flag. In the meantime, Fitzgibbons recognizes its responsibility to aid in every way possible, the maintenance of present heating installations, and its Service Department is prepared to supply at need, replacement parts and other required equipment.

### *Fitzgibbons Boiler Company, Inc.*

101 PARK AVENUE, NEW YORK, N. Y.

WORKS: OSWEGO, N. Y.

*Branches and Representatives  
in Principal Cities*



## Building Reporter

(Continued from page 200)

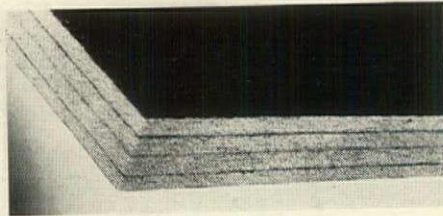
3/16 in., in widths up to 48 in., and in any length desired.

**Manufacturer:** Keystone Asphalt Products Co., 43 East Ohio St., Chicago, Ill.

**INSULATING BOARD.** Sugar cane (minus its sugar content) and asphalt pinch-hit for unobtainable cork.

**Name:** Celo-Block Insulation.

**Purpose:** To take the place of cork, usually obtained from war-encircled Spain,



in cold storage insulation.

**Features:** In order to match cork's ability to slow down the passage of heat, cane fibers are mixed in selected lengths and thicknesses, then woven and felted into 1/2-in. insulating boards of a special low density. To equal cork's resistance to moisture, the individual fibers, before being felted into boards, are sterilized,

waterproofed and then protected from dry rot and fungus growths by the patented Ferox process. To provide further resistance against moisture, the 1/2-in. boards are laminated together with special weather-resistant asphalts between layers. An additional coating of asphalt is then applied to the outer surfaces. Thus, a 2-in. thickness of insulation has five moisture-resistant asphalt membranes, one on each outer surface and three between the 1/2-in. cane fiber boards which make up the overall thickness. These multiple membranes afford extra insurance against moisture penetration resulting from surface damage. Puncture of the outside membrane exposes only the first 1/2-in. thickness. This characteristic is particularly valuable for emergency wartime construction, such as cold storage plants for training camps and air and naval bases, which must be built quickly with available labor. The edges of the blocks are not coated with asphalt during manufacture. Instead, they are coated on the job by applying hot or cold asphalt with a stiff brush at the time the block is set in place. This assures a perfect moisture-resistant fit between each block and provides an unbroken closed surface over the entire wall. Thermal conductivity is 0.30 Btu. per in., per sq. ft., per hr., per °F. Manufactured in three thicknesses: 1 1/2, 2 and 3 in.; and in two sizes, 18 x 18 in. and 18 x 36 in.

**Manufacturer:** The Celotex Corp., 120 South La Salle Bldg., Chicago, Ill.

**FUEL CONSERVATION.** Control for gravity-fed oil burning heating units.

## The Sponsors of Fibber McGee and Molly make good paint, too!



## JOHNSON'S Wax-Fortified Paints

Mill White Gloss  
Mill White Flat  
Commercial Interior Gloss  
Commercial Interior Semi-Gloss  
Commercial Interior Flat  
Dado & Machine Enamels, etc.



Made by the makers of Johnson's Wax

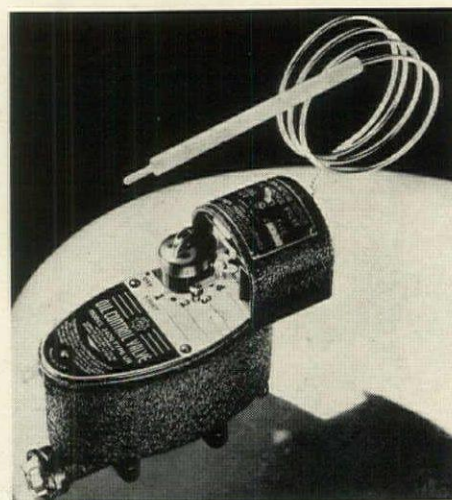
More and more Architects are specifying Wax-Fortified Paints for their extra service features

In these days when both manpower and materials must be conserved, Johnson's Wax-Fortified Paints have special advantages. These paints, which are impregnated with genuine wax, dry to leave a wax-smooth

surface that repels dirt . . . resists marring . . . maintains its light-reflective values longer. Because these truly modern paints reduce maintenance costs significantly, architects can recommend them to clients who are on the alert for superior paint service. Write today for new booklet, "The Why and What of Wax-Fortified Paints."

**S. C. JOHNSON & SON, INC.**  
**Industrial Maintenance Division**

Dept. AF92, Racine, Wisconsin



**Name:** A-P Type-U Temperature Limit Control.

**Purpose:** For use with floor furnaces, central heating units and heaters using the vaporizing type of oil burner, to conserve fuel.

**Features:** Consists of a charged Thermo element, capillary tube, throttle and shut-off mechanism, and Safety Constant Level Oil Control Valves. The Thermo element is placed either in furnace bonnet or un-

(Continued on page 204)



# HOW WOULD YOU DESIGN A POST-WAR INSULATION?



Architects are today planning post-war housing—freeing themselves from old concepts, old inhibitions, to “start fresh” on a better solution of tomorrow’s problem. Let’s do just that—right now—on the important question of *insulation* for tomorrow’s homes. Let’s consider what YOU’D want in that insulation—



**1 YOU’D WANT HIGHER EFFICIENCY**—greater protection against cold or heat, not only in the insulating material itself, but in its application and proper placement in the walls and ceilings.



**2 YOU’D BAR OUT WIND**—realizing that the most efficient insulation is windproof—preferably protected in a tough covering to stop wind infiltration and prevent chilly drafts.



**3 YOU’D WANT POSITIVE PERMANENCE**—to be certain that your insulation would stand the tests of time—that it was firmly fastened in place—and would resist fire, vermin and termites.

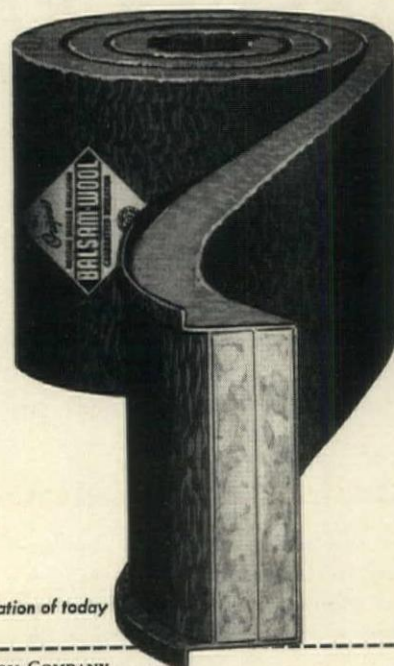


**4 YOU’D WANT BETTER MOISTURE BARRIERS**—because moisture is the biggest foe of insulation efficiency. You want to be absolutely certain that moisture will never be a problem.

## ... SUCH AN INSULATION IS AVAILABLE TODAY ITS NAME IS BALSAM-WOOL!

Result of many years of research, constantly improved, Balsam-Wool fulfills every insulation requirement for today and tomorrow because of these important DOUBLE protective features:

<b>DOUBLE</b>	<b>SEALING</b>	—fully protected in a tough, waterproof covering.
	<b>MOISTURE LINERS</b>	—two or more effective, lasting moisture barriers.
	<b>WIND PROTECTION</b>	—to prevent wind infiltration . . . to stop chilly drafts.
	<b>AIR SPACES</b>	—to permit walls to breathe—to add to insulation efficiency at front and rear of insulation when applied.
	<b>BONDING</b>	—insulation does not settle or pack down within liners.
	<b>FASTENING</b>	—firmly and positively fastened in place. Fire, vermin and termite resistant.



Mail the coupon for full information about Double Value Balsam-Wool—the insulation of today

**BALSAM-WOOL**  
DOUBLE VALUE INSULATION  
Product of Weyerhaeuser

WOOD CONVERSION COMPANY  
Dept. 147-9, First National Bank Building, St. Paul, Minn.  
Gentlemen: I want to know more about the new Double-Thick and Standard Balsam-Wool. Please send me complete information.

Name.....  
Address.....  
City.....State.....



## Building Reporter

(Continued from page 202)

der floor grill on floor type furnaces. The temperature in the bonnet or grill, acting through the Thermo element, accurately controls high or low oil flow to the burner, or, in case of abnormally high temperature, shuts off the flow of oil by positive spring force. Compact, sturdy, dependable, easy to operate, constructed with a minimum of critical materials. Can be equipped for completely automatic operation through

wall thermostat by the simple attachment of an A-P thermostatic electric conversion set.

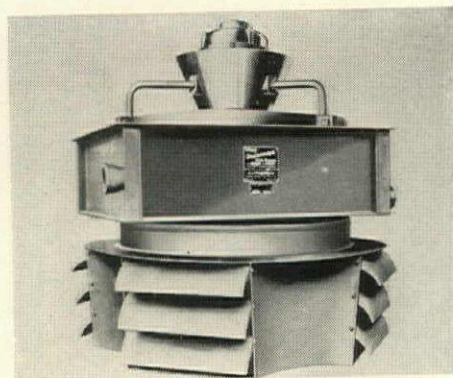
*Manufacturer:* Automatic Products Co., 2450 North 32nd St., Milwaukee, Wis.

**UNIT HEATER.** All sized spaces can be heated evenly because of the variable volume discharge outlet.

*Name:* Wing Revolving Unit Heater.

*Purpose:* For uniform temperature throughout entire building or room.

*Features:* Provision for adjusting the amount of heated air discharged from any side of the heater is incorporated in the discharge outlet, thus making possible the



heating of a long, narrow room or building with one revolving unit heater, the air streams being reduced and extended as the discharge outlets cover the sides and the ends respectively. The discharge from the multiple outlets is particularly effective in buildings or rooms with low ceilings. Additional number of outlets breaks up the discharge into slower but more closely spaced streams of heated air which circulate around obstacles and reach cold corners maintaining a uniform temperature and gentle movement of air throughout the entire building or room.

*Manufacturer:* L. J. Wing Mfg. Co., 160 West 14th St., New York, N. Y.

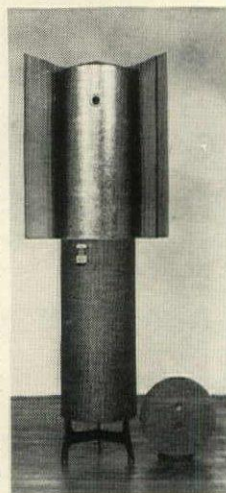
**TANK JACKET.** Saves fuel by providing quicker heating and longer heat retention.

*Name:* Economical Hot Water Tank Jacket.

*Purpose:* To conserve heat in all standard model 30- and 40-gal. hot water tanks.

*Features:* Made of highly efficient patented air-cell insulation, the jacket can be easily installed by anyone. Joints can be securely sealed with long-lasting cloth tape which matches the wood grain, gray and green finishes. The jackets also help to keep basements, kitchens and bathrooms comfortably cool. Cost: about \$2.48 for 30-gal. tank, \$2.98 for 40-gal. tank.

*Manufacturer:* The Hinde & Dauch Paper Co., Sandusky, Ohio.



**SHEET METAL.** Light gauge metal substitutes for galvanized iron and sheet copper.

*Name:* Cheney Protected Metal.

*Purpose:* For all general sheet metal work.

*Features:* Conforms to the specifications of the Navy, Army, Coast Guard and other Government departments. Comes in sheet form, can be sheared, bent in a hand brake, bent on dies and run through a lock-forming machine, locked, malleted, riveted and soldered (after removing the coating). Finished coating is a very

(Continued on page 206)

**FOR THE  
DURATION**

**Sedgwick Dumb Waiters  
and Elevators**

**SAFE • DEPENDABLE • ECONOMICAL**  
Electric and Hand Power

**PRIORITY  
ORDERS ONLY**

## SPECIFY HAND POWER

**Wherever Possible**

Just as many Architects, Engineers and Draftsmen have already adjusted their technical knowledge to war time conditions and National Service, so Sedgwick has been applying its engineering and production skill to meet changing needs in lift requirements. Many unusual problems have already been met, many will be met, to provide the type of equipment which will best serve special and critical demands. In order to conserve motors and metals, even though permissible under priority control, we suggest you

**SPECIFY Hand Power  
SEDGWICK DUMB WAITERS**

for food service, supplies, garbage disposal in canteens, mess halls, hospitals and other institutions, and for any special needs where loads do not exceed 500 lbs.

**SPECIFY Hand Power  
SEDGWICK ELEVATORS**

for handling freight and other heavy or bulky loads, for movement of patients and staff in hospitals, for mortuaries, and for any special needs where loads range up to 2,000 lbs.



We invite consultation and offer fullest cooperation in connection with any problem related to vertical lifts.



**SEDGWICK MACHINE WORKS**

140 West 15th Street

Established 1893  
Member of Producers' Council, Inc.

New York, N. Y.





## Bombers from the Bottom of the Deep Blue Sea

**T**HERE'S a fabulous amount of magnesium in every cubic mile of sea water.

Enough magnesium for more than *four million* Flying Fortresses. Enough to lay a continuous ceiling of bombers . . . a hundred miles wide and stretching all the way from London to Berlin!

Now magnesium can't be dredged out of the ocean . . . for every ounce of this rare metal must be produced by electrolysis. This necessitates the conversion of vast amounts of alternating current to direct current, at the very water's edge.

The best means of converting power is the mercury arc rectifier. As long as ten years ago, Westinghouse Research Engineers began experimental work on a *new type* of mercury arc rectifier which would be more efficient . . . more economical . . . less costly to install and maintain than existing types.

These Westinghouse scientists realized that new untapped fields in metallurgy would be opened by

the perfection of an improved mercury arc rectifier. In 1937, they brought forth the *Westinghouse Ignitron*.

The Ignitron operates on the radically new principle of *starting* and *stopping* the mercury arc with each cycle. This means that electrodes can be placed much closer together . . . grids and shields reduced . . . arc drop voltage decreased . . . voltage control simplified . . . arc-back practically eliminated. And all of this assures higher efficiency and greater reliability.

More than 1,000,000 kw of Ignitrons are now at work in magnesium, aluminum and chlorine plants, in electric railway systems, in mines, in many war industries.

*And so, the germ of an idea . . . born ten years ago in the Westinghouse Electronics Laboratories . . . is now contributing its important share in winning the war today.*



# Westinghouse

WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, PITTSBURGH, PENNSYLVANIA



## Building Reporter

(Continued from page 204)

tough, elastic, rubber-like material which will not run at 230° F., nor crack at freezing temperatures. Resists corrosion and most acid conditions. Weathers to a gray color. Because no coal tars or asphalts are used in the coating, bleeding is eliminated which allows for painting any color directly on the sheet without using shellac or special primers. Available sizes: 30 x 96 in. and 36 x 96 in.; gauges: 28, 26, 24, 22, 20, 18; packages: bundles of about 150 lbs. each.

**Manufacturer:** Cheney Metal Products Co., 33 Oxford St., Trenton, N. J.

**BOMB-SNATCHER** gets rid of incendiary bombs before they start dangerous fires.

**Name:** Bomb-Snatcher.

**Purpose:** To pick up and move burning incendiary bombs speedily, safely, effectively.

**Features:** This device is, in effect, a pair of tongs with semi-cylindrical jaws which enclose the bomb and hold it as in a cup to prevent molten, white-hot magnesium or blazing thermite from dripping out. The jaws are lined with high-temperature fire-resisting material covered with a heat spreading sheath. Price: \$12.50.



**Manufacturer:** McGraw Electric Co., 5201 West 65th St., Chicago, Ill.

**BOMB SHOVEL** replaces sand bucket, shovel, hoe and shield.



**Name:** Dura Four-In-One Bomb Shovel.

**Purpose:** For aid in instant smothering of blazing incendiary bombs.

**Features:** The shovel should be placed over bomb, partially smothering it by cutting off oxygen. The hollow handle of the shovel carries sand which is then released over the burning material. The shovel may then be turned over, the bomb and sand scooped up and placed in the nearest fireproof receptacle. The shovel keeps the operator 4 to 5 ft. from bomb at all times, weighs only 17 lbs. Price: \$3.75.

**Manufacturer:** Industrial Maintenance Engineering Co., Ltd., 724 South Spring St., Los Angeles, Calif.

**PAINT** primes, seals and finishes on any interior surface in one coat.

**Name:** Valdura Singlekote.

**Purpose:** To combine the hiding power of water-type paints with the washability and durability of oil-type coatings.

**Features:** This paint may be applied to plaster, concrete, brick, wallboard, wood, wallpaper, metal, even surfaces previously coated with calcium or casein paints (providing the old covering is bonded or tight to the wall). Coverage: up to 750 sq. ft. per gal. It is available only in white, but may be tinted with alkali-resistant colors in oil.

**Manufacturer:** American-Marietta Co., 43 East Ohio St., Chicago, Ill.

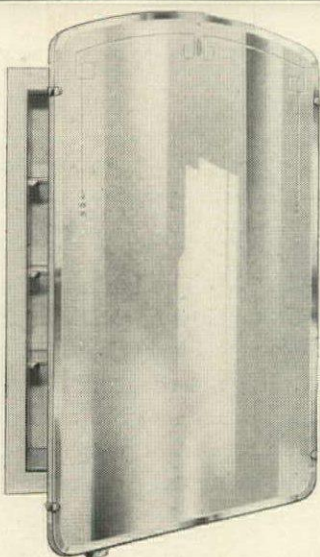
(Continued on page 208)

## LAWSON

*Will Continue to Offer the  
Finest Cabinets Available*

### Now

For the fifth time in the 126 years of our existence we have pledged our cooperation to an American Victory Program. As a result, the bathroom cabinets we offer today are constructed of wood and other non-critical materials. Frankly, this cabinet is only a substitute. But wait! Don't judge them by the old-fashioned wooden bathroom cabinet. Look, for instance, at the illustration of the Lawson Warwood cabinet (at the right). When you see one, you'll agree with us that it even *looks* like steel.



• WRITE today for our wartime price list showing the complete line of Lawson Warwood Bathroom Cabinets

## - and in the FUTURE

What will the cabinet of the future be? It will be a cabinet designed for the house of the future and manufactured of the materials best suited to its design. Perhaps it will be made of steel, perhaps of plastics or of aluminum or even of plywood. In any case, it will bear the name of Lawson.

**Lawson**  
BATHROOM  
CABINETS

126 YEARS  
OF QUALITY

**Lawson**  
"KNOW-HOW"  
is based on  
126 Years  
of Experience

THE F. H. LAWSON CO., Bathroom Cabinet Division, Cincinnati, Ohio



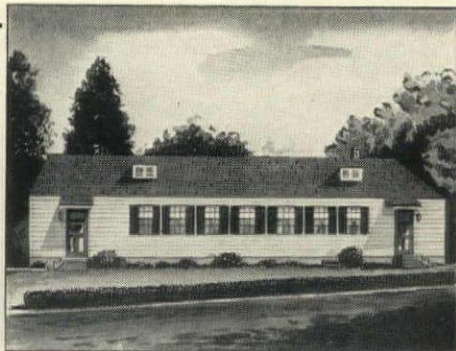
# Again INSULITE Answers the Call!

UNCLE SAM has first call on all of us—on all we have and all we hope to be. No loyal American would have it otherwise. Despite increased production, Insulite today is hard pressed to meet tremendous war requirements.

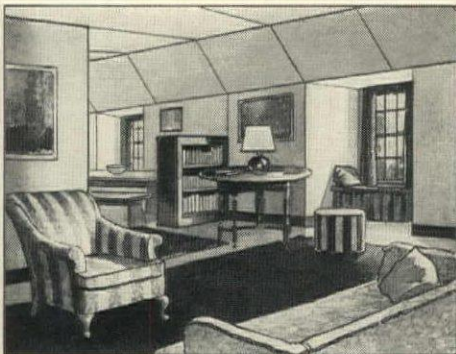
Today, as in World War I, Insulite is called upon to help build our Army and Navy to an all-time peak. The war building program has been greatly accelerated by the use of Insulite, thereby conserving other materials of which there's a critical shortage.

Structures built with Insulite require less fuel, for Insulite *insulates as it builds*. Insulite is quickly, easily applied—saves time and labor, two highly important factors today.

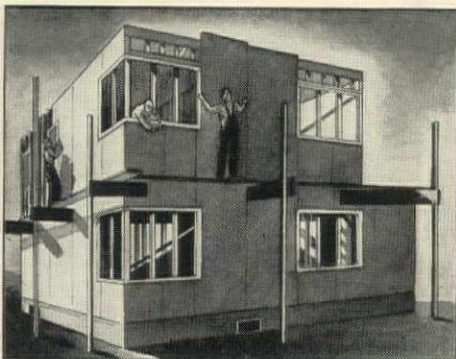
In this emergency Insulite's many plus values have firmly established it as a *basic building commodity*. When building returns to peacetime normal, the demand for Insulite will be increasingly greater.



The housing of war workers is a national emergency. Here again Insulite answers the call. Insulite enables contractors to build faster, sounder and more efficiently. Insulite helps to conserve lumber and other critical materials.



The equivalent of 150,000 new homes can be made available to house defense workers by finishing the attics of homes built with attic stairways in the past four years. Insulite is quickly applied to studding or existing walls.



When normal building activities are resumed and America again turns to new home construction, The Insulite Approved Wall of Protection will help make them safe and sound.





**Saves Lumber**  
Insulite in construction requires a minimum of lumber and other critical materials. By using Insulite wherever possible, you release lumber for more critical needs.

**Saves Time**  
Insulite saves time because it can be quickly applied. The large, easy to handle panels fit snugly into place. Used as interior finish, Insulite creates serviceable, attractive interiors without further decoration. Insulite gives effective insulation, too.

**Saves Transportation**  
Insulite relieves the transportation shortage in two ways. First, Insulite occupies a minimum of space in freight cars. Second, each car of Insulite used in construction releases one car of fuel oil for war needs every two years.

INSULATE WITH  
**INSULITE**  
THE ORIGINAL WOOD FIBRE STRUCTURAL  
INSULATING BOARD

INSULITE  
Minneapolis,  
Minnesota



Division of  
Minnesota and Ontario  
Paper Company

REG. TRADEMARK



## Building Reporter

(Continued from page 206)

**WEATHERPROOFING.** Plastic pitch protects metals, releases zinc for other uses.

**Name:** Plastipitch.

**Purpose:** Simple bonding process to release zinc (a critical war material) by replacing galvanizing and rolled bituminous applications.

**Features:** An outstanding characteristic of the process is its ability to provide special climatic or weather-resistant qualities as may be required to meet Arctic or

subtropic conditions. This is accomplished by appropriately modifying the "Plastipitch" before application to the metal to produce a coating that will not



become brittle or chip off at low atmospheric temperatures, or melt and flow at high temperatures. Only prefabricated or preformed metals are used. No further shaping or forming should be made after the "Plastipitch" application is completed, thus avoiding possible rupture of the coating bond and strains in the metal which may result from further mechanical processing. Coated Products materials are available in various types of finishes and in a variety of colors, fineness and quality of mineral surfaces.

**Manufacturer:** Coated Products Corp., P. O. Box L, Verona, Pa.

**FLOODLIGHT.** Same housing is supplied with either wide or narrow beam lens.

**Name:** Type VE-18 (wide beam) and Type VEG-18 (narrow beam) Floodlights.

**Purpose:** For lighting construction projects, industrial yards, sports areas, so on.

**Features:** Both units are equipped with a snap cover having a heat-resisting glass lens, making them proof against accumulation of dust and dirt on the reflecting surface. Reflector housing is formed from annealed sheet iron with a green porcelain enamel finish. The wide beam unit has a white porcelain enamel inside surface, while the forward elliptical section of the narrow beam reflector is a separate piece of silvered glass and the rear section white porcelain enamel.

**Manufacturer:** Westinghouse Lighting Division, Edgewater Park, Cleveland, Ohio.



● When you sit down before that clean sheet of paper to design your home of the future, Mr. Architect, consider these two outstanding facts:

To provide sufficient bathing facilities for the comfort and convenience of the entire family will offer one of the most insistent challenges to your creative ingenuity.

The Cabinet Shower has already proved itself the bathing unit of greatest flexibility and adaptability to the use of new materials and new techniques of building.

Because of this very adaptability the Cabinet Shower right now is the only type of bath available for many thousands of defense homes, where saving of space and critical materials are governing factors.

Years before the war emergency had thus highlighted the utility and flexibil-

ity of Cabinet Shower baths, Weisway had developed a whole family of dependable leakproof shower bathing units... solving the insistent demand for more bath facilities in homes of every size and price class.

For the duration, Weisway production must necessarily be confined to the single Model V, created to meet the critical materials limitations of WPB, for use wherever bath facilities are required. When the war is won you can depend on Weisway leadership again to provide Cabinet Shower units that will utilize the materials, the design and fabrication techniques which will literally build our world anew.



HENRY WEIS MFG. CO., INC. (Est. 1876) 902 Oak St., Elkhart, Indiana

**FLUORESCENT LIGHTING.** Extension cord unit designed for factory work.

**Name:** Fluorescent Extension Cord Light P-7.

**Purpose:** For work requiring close inspection in war plants.

**Features:** Fixture may be clipped to worker's belt or



hooked into coat lapel, leaving both hands free. Cool, low brightness of the light source reduces eye fatigue not only by reducing glare but also by increasing the effective illumination on the work. Lamp is easily replaced: simply remove two end cap screws, loosen two screws in other end, tilt back guard and slip out deactivated lamp. Total consumption: 8 watts, including lamp and auxiliary. Operating voltage: 110-125 volts, 60 cycle AC. Dimensions: 9½ in. long, 1 in. wide, 1¾ in. thick.

**Manufacturer:** Sylvania Electric Products, Inc., Lighting Div., Ipswich, Mass. (formerly Hygrade Sylvania Corp.)

(Continued on page 210)



S. S. Kresge Company chose Marbleized Color No. 121 for this attractive floor of J-M Asphalt Tile in their Evanston, Ill., store.



*For Beauty that  
can take a Beating...*

Specify the floor with the lasting  
qualities of ASBESTOS and ASPHALT

HERE IS ONE SPECIFICATION you can write today, *without the use of critical materials.*

It's a floor of Johns-Manville Asphalt Tile... a floor of eye-catching beauty... and one which offers advantages of economy and durability that are of particular importance in these times.

From the attractive colors available, there is practically no limit to the number of good-looking floor patterns you can design with this modern resilient flooring. Or you can create a floor of distinctive appearance using only a single color, as was done in the store shown above.

And here is beauty that can really take a beat-

ing! Because it is made of asbestos and asphalt, two of the most durable materials known, J-M Asphalt Tile combines in itself the lasting qualities of both. Year in and year out, it stands up under the heaviest foot traffic—requires little if any maintenance except ordinary cleaning. And J-M Asphalt Tile is low in first cost, too—a feature that enables you to specify it wherever a decorative flooring material is required.

YOU'LL FIND stimulating suggestions for decorative floors for stores, restaurants, offices, home recreation rooms, etc., in our new full-color brochure, "Ideas for Decorative Floors." For your copy, write Johns-Manville, 22 E. 40th St., New York, N. Y.

**Johns-Manville ASPHALT TILE FLOORING**



## Municipal Court House

Philadelphia, Pa.

William R. Moetor Keast, Architect, Philadelphia, Pa.; John McShain, Inc., General Contractor, Philadelphia, Pa.; Wm. Armstrong & Son, Inc., Plastering Contractors, Philadelphia, Pa. The *original* Ohio White Finish was used on all plastered walls and ceilings.



The *original* is always packed in bags distinctively marked with Red Zig Zag stripes.

The *original* Ohio White Finishing Lime is scientifically manufactured from the world's purest deposit of dolomite limestone. Thousands of architects, plastering contractors and dealers, who demand nothing less than the best, accept it as a standard for uniform high quality. It is sold everywhere through reputable building supply dealers whose service to the construction industry we value.

THE OHIO HYDRATE & SUPPLY CO.

Woodville, Ohio

## WOOD + CONSERVO

— is WOOD protected  
for years beyond its  
normal life . . . . .

Wood plus Conservo is wood with permanent protection — against termites and moisture, rot and decay. Conservo penetrates deeply; preserves wood and repels termites with sterilizing phenols; lasts indefinitely because it is non-volatile, highly insoluble, does not evaporate below 420° F. Conservo is ideal for low-cost factories and housing. Should also be applied to all lumber used for sills, floors, planking, posts, wharves, trestles, fences — wherever you want greater permanence in wood.

**FREE FOLDER.** Write for your copy today. Samuel Cabot, Inc., 1275 Oliver Building, Boston, Mass.

# Cabot's CONSERVO

— Wood Preservative —

## NEW TOXIC WATER REPELLENT MINIMUM STANDARDS

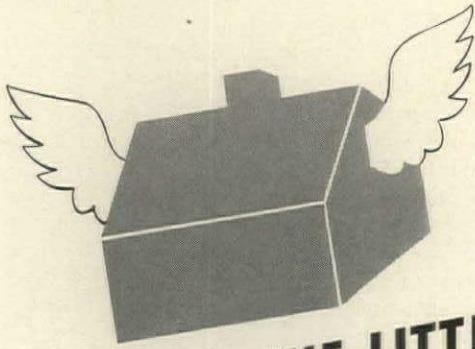
The new Minimum Standards of Toxic Water Repellency increase the natural resistance of wood not only to decay and stain, but also to warping, twisting and dimensional variation. The new seal, shown below, guarantees that the windows, doors, shutters, screens, storm sash and other exterior woodwork upon which it is branded, have been treated to conform with these important new standards.

NATIONAL DOOR MANUFACTURERS ASSOCIATION  
332 South Michigan Avenue Chicago, Illinois

## NEW SEAL OF APPROVAL







## WILL THE LITTLE GRAY HOME GO WEST — IN 194X?

Will the little gray home now go west with the little red schoolhouse?

If it does, it will take with it a hundred archaic practices which have marked house building as the most complicated, irrational process in the whole vast march of business industrialization. Thoughtful men have predicted for years that some day radical changes would have to take place in house building methods. Those years have seen changes aplenty in the construction of large buildings. But the little gray home, alone, had withstood nearly every assault of science to build it faster and better and cheaper. Immunized by sentiment, inhibitions and restraints (not always legal) the little gray home had stood its ground.

Now, for the first time, under the urgent necessity of the war program, thousands of small houses are being built in hours instead of weeks, without loss of quality and for less money than ever before—a radical departure, certainly—but one that has been continually forecast, explored and interpreted for years in the pages of *THE ARCHITECTURAL FORUM*.

What are the implications of these developments on the future face of building? No one knows the whole answer. No one can yet chart with assurance just where these changes will leave their greatest impress. How profound the effects of these important changes can be are clearly illustrated in this issue of *THE FORUM*, and whatever their total impact will finally be, readers of *THE ARCHITECTURAL FORUM* will know about it first.

To all building practitioners, three things are of vital importance. 1) They must watch these trends. 2) They must not underestimate their significance. 3) They must safeguard the future position of their practice by keeping in close touch with those forward-looking leaders who are spending their full time and energy to prepare the building industry to take its rightful place in the highly competitive and profitable period that is bound to follow the war.

To help our readers maintain for the future the personal investment of time, money and training they have made in the Building Industry, the Editors of *THE FORUM* will keep its readers reliably informed on all significant new developments and trends. And just as this September issue of *THE FORUM* explores many of the possibilities in the new house, so future issues will continue to search new horizons in their study of building's other long-range opportunities.

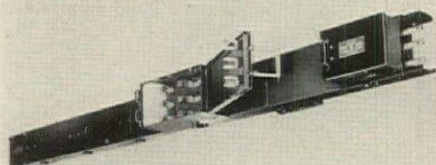
# THE ARCHITECTURAL FORUM



## Building Reporter

(Continued from page 208)

**PLUG-IN DUCT** makes current for industrial plants easily accessible.



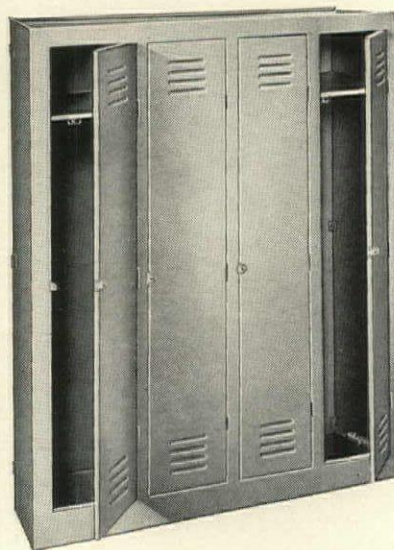
**Name:** Square D Saflex Plug-In Duct.

**Purpose:** To supply electrical energy in many-outlet form for industrial use.

**Features:** Duct is available in capacities of 250, 375, 500, 750 and 1,000 amperes, in 2- and 3-wire single phase, 3-phase and 4-wire service. It utilizes round tubular buses for 250, 375 and 750 capacities, and solid round bus bars for 500 and 1,000 amperes. These round bus bars are contained in a steel housing. Six openings are provided on each side of a standard 10-ft. length, will accommodate twelve plug-in units.

**Manufacturer:** Square D Co., Switch & Panel Div., 6060 Rivard St., Detroit, Mich.

**WOOD LOCKERS** save vital steel, provide sturdy, strong storage cabinets.



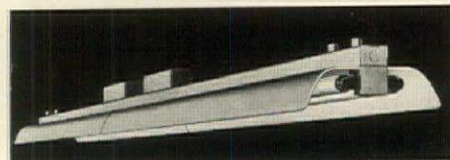
**Name:** Industrial Wood Lockers.

**Purpose:** To meet today's requirements for clothes lockers in war industry plants.

**Features:** Panel construction is plywood, moisture-resistant. Door frame is 1 in. poplar and doors are 3/4-in. plywood with slotted louvers. Each section conveniently folds into knocked-down position for shipping or movement, and to erect only necessitates sliding in top, bottom and shelf panels which lock into place. Any handyman can quickly make installations. Two double coat and hat hooks are supplied; locking devices are optional, either keyed locks or hasps for padlocks.

**Manufacturer:** Lockercraft Co., 1112 Harter Bank Bldg., Canton, Ohio.

**FLUORESCENT LIGHTING.** New industrial units use non-metallic reflectors.



**Name:** Curtis Non-Metallic Fluorescent Lighting Units.

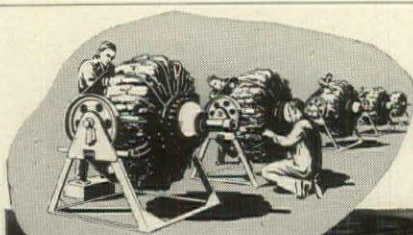
**Purpose:** For industrial illumination.

**Features:** Replacing the usual metallic reflector is a hard, durable material finished in Fluracite, a tough white synthetic that does not discolor and is easily cleaned with soap and water. It boasts a smooth surface of unusually high reflectivity. Fixtures employ the usual CurtiStrip wiring channel, and two or three 40-watt lamps or two 100-watt lamps per reflector. Eight- or ten-foot sections may be joined for continuous runs of any length, or reflectors may be omitted when desirable without interfering with the continuous wireway. Ballasts and starters are mounted on top of the CurtiStrip, making them readily accessible at any point.

**Manufacturer:** Curtis Lighting, Inc., 6135 West 65th St., Chicago, Ill.

(Continued on page 212)

## • • BEFORE PRODUCTION COMES Construction



★ and here's where  
**SISALKRAFT**  
is doing a Curing Job!

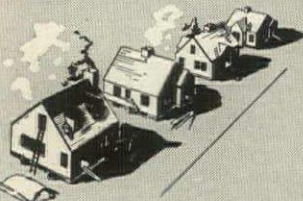
**CURING** concrete factory floors, airport runways, access roads and structures — closing in — protecting materials, equipment and finished work — in these and numerous other ways, tough, waterproof SISALKRAFT paper is right in the thick of America's tremendous program of war construction. • Quickly rolled out over freshly finished concrete, SISALKRAFT assures thorough curing and effective protection without further attention, saving time, man-power and money. For speed, efficiency and economy in concrete curing — specify SISALKRAFT. Available for essential war construction needs in rolls, blankets and covers to suit every job. Convenient distributors' stocks throughout the country.



Write for engineering data.  
**The SISALKRAFT Co.**  
205 W. Wacker Dr. Chicago, Ill.  
NEW YORK SAN FRANCISCO



**PROTECTING . . .**  
material and equipment

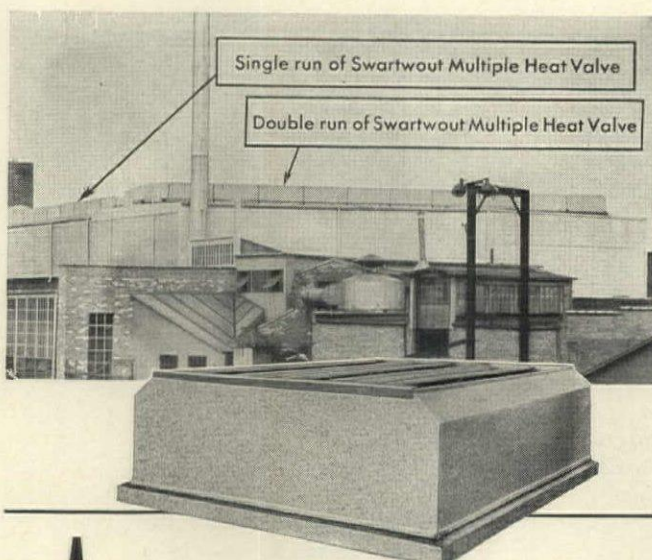


. . . for faster, better  
**DEFENSE HOUSING**

# SISALKRAFT

The Standard Paper for CONCRETE CURING





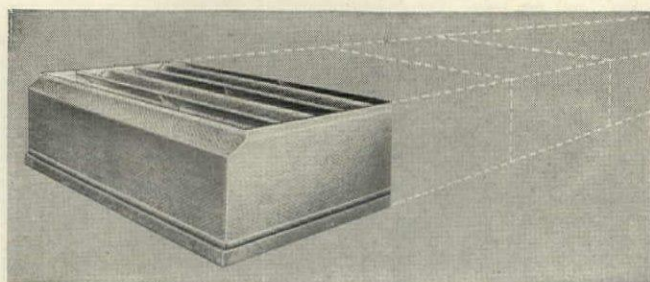
## Architects and Engineers achieve startling new ventilation results with **Swartwout Multiple Heat Valve**

● Here's the newest gravity roof ventilator for industrial and commercial buildings—a radical departure, but designed from practical experience. And already *tried and proved* under severe conditions.

Swartwout Multiple Heat Valve is only 32" high, a delight to architects interested in preserving harmonious structural lines. Each unit provides 30 square feet of opening for fast air movement through weather-proof low-friction throats. You can add any number of units—to make a run the length of a building, or mass several runs together, virtually opening the roof to the sky.

For 30 square feet of opening—or 3000—Swartwout Multiple Heat Valve gives you unusual flexibility and efficiency. Write for new 1942 Swartwout Ventilator Catalog.

THE SWARTWOUT CO., 18617 Euclid Ave., Cleveland, O.



# Swartwout

**VENTILATION SPECIALISTS**

## ★ DOORS ★

### FOR WAR HOUSING AND REMODELING

by the World's Largest  
Door Manufacturer



**PROMPT  
SHIPMENT—  
ANY  
QUANTITY**



**F**amous Wheeler Osgood doors are available in any quantity for War Housing projects and for private remodeling. Many home owners who had planned to build are now remodeling instead . . . When you do business with Wheeler Osgood you are dealing with a concern which can completely supply your every need for doors. For exterior or interior use, these fir doors are made from one of the World's finest woods for door manufacture. Uniform, super-strong and beautiful, fir is rot-proofed by nature.

Don't forget—no matter how big or how varied your order for doors is—Wheeler Osgood can fill the entire order immediately.

**COLOR GRADED**—Wheeler Osgood's sensational new "Color-Grading" system for doors shows you at a glance the grade, style, size and surface of every door in stock.

## COLOR GRADED



**DE LUXE GRADE A**—Bright blue label bearing grade, size, style, surface, *guarantee!* Helps customers recognize quality.



**MASTER GRADE B**—Bright red label, bearing grade, size, style and surface.

• **WHEELER OSGOOD "COLOR-GRADED"** Grade A and B Douglas Fir doors are built in strict accordance with Department of Commerce Standards CS73-38, CS91-41.

## WHEELER OSGOOD DOORS



**FREE** Wheeler Osgood Sales Corp.  
Dept. 10, Tacoma, Wash.

Gentlemen: Please send me free literature  
on Wheeler Osgood "Color-Graded" Doors.

Name.....

Address.....

City..... State.....



## Building Reporter

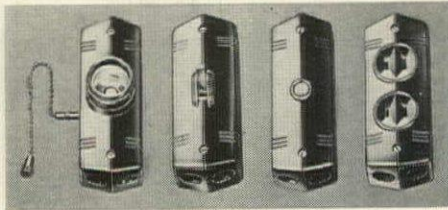
(Continued from page 210)

**SURFACE WIRING** devices developed for war buildings.

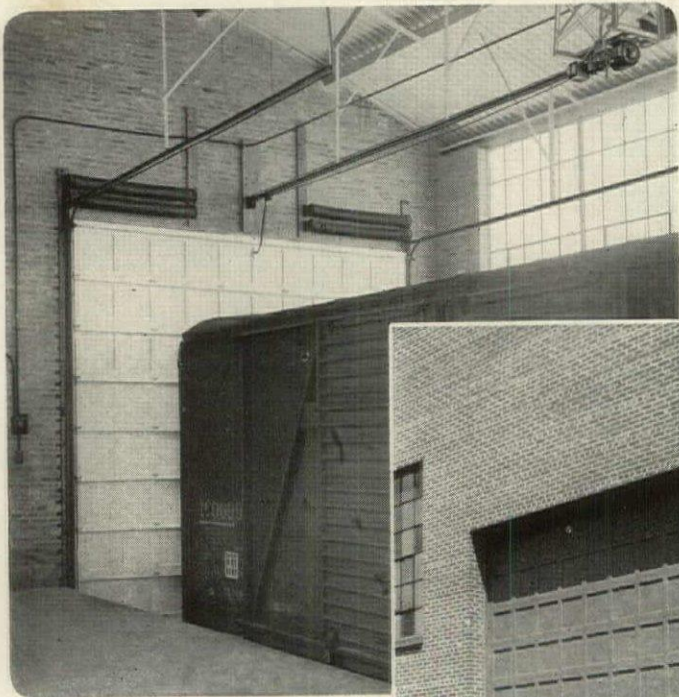
**Name:** Moncor Surface Wiring Devices.

**Purpose:** For use in wiring cantonments, warehouses, temporary industrial buildings, war dwellings.

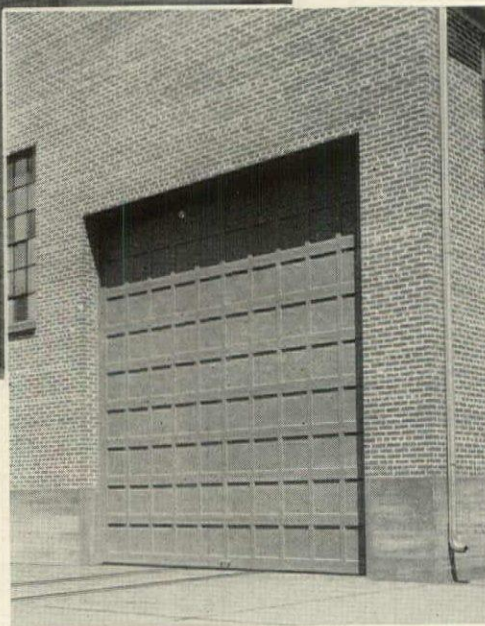
**Features:** Line includes a duplex convenience outlet, a single-pole "T" rated switch, a 3-way "T" rated switch, a key-less lampholder, a pull-chain lampholder, a junction box and rosette. Also, two



accessories—a back-connecting strap for use when cables are concealed, a combination clamp and continued ground strap for use with BX. Made of brown Textolite, the devices are light and strong, keep their color, resist moisture and corrosion. They can be end-connected or side-connected for surface wiring, back-connected for concealed wiring.



**WOOD-SECTION  
OVERHEAD DOORS  
FOR LARGE  
OPENINGS...**



## BARCOL OVERDOORS

These pictures show a 17 x 18-foot Barcol OVERdoor at the freight track entrance to a machine tool plant shipping department. This is typical of the uses where Barcol OVERdoors are finding favor, especially during war time conditions. Note the Electric Door Operator with open-close-stop push-button control which makes handling of this big door a quick and easy matter.

### SAVE STEEL...

Wood-section Barcol OVERdoors require a minimum of critical materials and are built to exacting standards which assure long life and trouble-free operation. Thousands of successful installations of large Barcol OVERdoors are to be found in all parts of the country. For engineering details and specifications to suit your needs, consult your Barcol representative.



**BARBER-COLMAN COMPANY**

112 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

**Manufacturer:** General Electric Co., Bridgeport, Conn.

**LIGHTING.** Manual-reset fluorescent lamp starter.

**Name:** Master No Blink.

**Purpose:** To lock dead lamps out of the circuit thus allowing instant dead lamp replacement.

**Features:** In automatic starters, a flow of current is required to keep the dead lamp from flickering. With the "Master No Blink," no current flows through the ballast after the dead lamp has been locked out. This current cut-off feature prolongs the life of the ballast. It also eliminates the "cooling" period which is required for replacement of lamps using automatic starters. When a dead lamp is locked out of the circuit, a small red button on top of the starter snaps forward. When the worn-out lamp is removed from the fixture, the red button is pushed in manually to reset the starter, without removing starter from the fixture. Lamps can be changed without shutting off current.

**Manufacturer:** General Electric Co., Bridgeport, Conn.



**PAINTS.** Special system developed for use on prefabricated housing units.

**Name:** Pre-fab Paint System.

**Purpose:** For surfacing plywood, lumber or manufactured board.

**Features:** System comprises 1) a rapid drying shop coat which can be used without a preliminary sealer, 2) a quality lead, zinc and oil field coat. The shop coat does not deteriorate if unfavorable weather conditions or scarcity of labor cause delay in application of the finish coat at the building site.

**Manufacturer:** The Arco Co., 7301 Bessemer Ave., Cleveland, Ohio.

**CONCRETE** curing compound boasts high water-retaining capacity.

**Name:** Tru-Cure.

**Purpose:** Expedite concrete construction.

**Features:** A clear liquid, this product is sprayed on the wet concrete immediately after finishing or as the forms are removed. It seals and locks in the moisture, produces the equivalent of a 14-day water cure without any of the labor expense of hauling dirt, keeping surfaces wet, applying paper, burlap, cotton mats, so on. Tests show a moisture-retaining capacity better than 96% at 24 hours at a temperature of 110° F., or 90% at 7 days.

**Manufacturer:** Truscon Laboratories, Detroit, Mich.

(Continued on page 214)



**Mr. B. Smart Says:**



**THE KOVEN WATERFILM  
BOILER BURNER-UNIT  
IS JUST WHAT YOU'VE  
BEEN LOOKING FOR!**



**THIS CUTAWAY  
VIEW SHOWS  
COMPACTNESS  
AND ACCESSIBILITY  
OF BURNER, HOT  
WATER COIL AND  
ALL CONTROLS**



**A PATENTED  
BOILER PLUS  
AN EFFICIENT  
BURNER**



The MATCHED WATERFILM BOILER-BURNER UNIT in its heavy steel De Luxe enclosing jacket of two tone gray hammerloid combines the popular Fast Steaming WATERFILM Boiler with an efficient oil burner forming a completely co-ordinated oil burning unit. This smart appearing heating plant offers you the Utmost in Heating Comfort and abundant domestic hot water from built-in-coils at Low Fuel Costs.

Models are available to meet the Individual heating requirements of the small or large home or multiple family house.

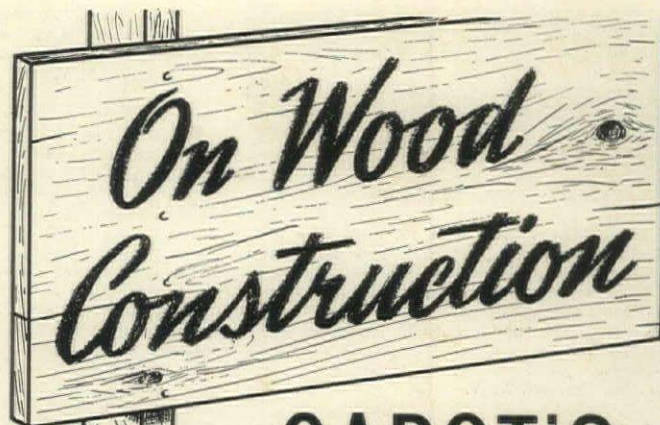
The finest oil burner that money can buy . . . that skill can produce yet surprisingly economical to operate, the WATERFILM oil burner co-ordinates perfectly with the High Efficiency and Low Oil Consumption of the KOVEN WATERFILM BOILER — the fastest producer of steam on the market — the wisest buy for your home, office or commercial plant because a WATERFILM BOILER-BURNER UNIT is tailored to meet your Individual heating needs!

Write or telephone today for complete details concerning  
KOVEN WATERFILM BOILERS.

**WATERFILM BOILERS, INC.**

154 OGDEN AVENUE, JERSEY CITY, N. J.

PLANTS: Jersey City, N. J. and Dover, N. J.



**CABOT'S  
STAINS**

*save time and trouble*



*Cabot-stained Schoolhouse at Cornwall, Conn.  
Architects: Adams & Prentice, New York City*

Cabot's Stains are quick and easy to apply. Remarkably trouble-free, they do not peel or blister even when applied on unseasoned lumber, or before the building has dried out. Cost less than paint. Give maximum protection with no waste of precious raw materials.



**FREE BOOKLET — Stained Houses.** Contains full information. Write for your copy and color card today. (Or look up Cabot's Stains in Sweet's). Samuel Cabot, Inc., 1274 Oliver Building, Boston, Mass.

**Cabot's  
Shingle Stains**

**Creosote • Heavy-Bodied**



# Building Reporter

(Continued from page 212)

## NEW PRODUCT LITERATURE

**AIR CONDITIONING.** *This is an Air Conditioned War.* Condensed catalog, 12 pp., 8½x11, presents: a table giving partial listing of the many war industries served by Carrier; a breakdown grouping the products according to their functional classification (1. temperature and humidity control, 2. refrigeration, 3. heating, 4. special applications), and then listing those industries requiring the different types of installations. Carrier Corp., South Geddes St., Syracuse, N. Y.

**AIR CONDITIONING.** *Civilian Conservation of the Btu.* Manual, 21 pp., 5½x8½, giving instructions on simple care and operation of air conditioning, refrigerating and heating systems for wartime conservation. Indexed for

ready reference, explained in non-technical terms. Applies not only to Carrier products but to all mechanical equipment of this type. Carrier Corp., South Geddes St., Syracuse, N. Y.

**ARC WELDING.** *Procedure Handbook of Arc Welding Design and Practice.* 1,308 pp., 6x9. Seventh edition, greatly enlarged, explains more fully than ever before the various methods and techniques used in welding, with a view to making it easier for the thousands of men in training to learn the essentials of welding in the shortest possible time. Eight sections cover the following subjects: 1) Welding methods and equipment; 2) Technique of welding; 3) Procedures, speeds and costs; 4) Weld metal and testing; 5) Weldability of metals; 6) Welded steel machine design; 7) Designing of arc welded structures; and 8) Typical applications. Price: \$1.50 postpaid U. S.; \$2 elsewhere. The Lincoln Electric Co., 12818 Coit Rd., Cleveland, Ohio.

**COPPER FOR VICTORY.** *Five Ways to Conserve Copper.* Timely "idea" book, 8½x11, 20 pp. Dramatically illustrated methods of saving tons of copper in electrical systems by following five tested, fundamental steps. General Electric Co., Schenectady, N. Y.

**ELECTRICAL SYSTEMS.** *Circular 337.* Leaflet, 4 pp., 8½x10, illustrates and describes new features of the L.V.D. (Low Voltage Drop) Enclosed Busbar Distribution System. Announces the addition of the "Aired" L.V.D. System, in which the busbars are enclosed in steel casings provided with a series of openings which facilitate the circulation of air and so increase the current carrying capacity by some 35 to 50 per cent—which in turn reduces the cost of installation. This new L.V.D. System conserves copper, steel and rubber. The Trumbull Electric Mfg. Co., Plainville, Conn.

**FLOOR FINISHING.** *How to Finish Sixteen Kinds of Floors.* Booklet, 16 pp., 5½x8½. Neat compilation of directions for finishing most types of floors encountered in building and building maintenance. Should prove of invaluable assistance to the painter, floor finisher and maintenance man in choosing the finish to suit a particular job. O'Brien Varnish Co., 101 North Johnson St., South Bend, Ind.

**INTERIOR FINISHES.** Three new pamphlets: 1) *Facts You Should Know About Home Insulation (Temlock)*, 12 pp., 8½x11, tells how to sheath, insulate, lath, modernize, cut maintenance time, and add color to all the rooms in the home—at low cost. Accompanied by a blueprint, 4 pp., 8½x11, which gives structural details.

2) *Temlock De Luxe Gives Your Interiors All This...* 4 pp., 8½x11, sets forth the features of Temlock De Luxe: decorates, insulates, reflects light, reduces noise, saves time and money.

3) *Armstrong's Hardboards*, 4 pp., 8½x11, reviews the uses of: Temwood, an adaptable hard-pressed woodfiber board; Tempered Temwood for severe service; Blocked Tempered Temwood for tile effects; and Temboard De Luxe, a decorative wall and ceiling finish. Armstrong Cork Co., Building Materials Div., 1222 State St., Lancaster, Pa.

**LATH.** *Metal Lath in Special Wartime Uses.* Bound loose-leaf file, 24 pp., 9x11¾. Informative data, much based on English experience, showing value of metal lath for special wartime uses. Includes a 4-page article on "Structural Means of Combating Explosive Forces." Metal Lath Manufacturers Assn., Standard Bldg., Cleveland, Ohio.

**LIGHTING.** *Silv-A-King Makes Light Work for You.* Booklet, 12 pp., 8½x11, deals with the application of fluorescent and incandescent lighting to industrial plants and the advantages of each for meeting particular requirements. Shows scope of Silv-A-King Lighting Service. Bright Light Reflector Co., Inc., Metropolitan & Morgan Aves., Brooklyn, N. Y.

**LIGHTING.** *Trol-E-Duct, Bulletin No. 425.* Catalog, 24 pp., 8½x10. Information on Bulldog Universal Trol-E-Duct busway wiring method—a system designed to meet the requirements of flexibility and speedy erection in modern industrial plants. Illustrations, specifications, dimensions, charts, wiring diagrams. Bulldog Electric Products Co., 7610 Jos. Campau Ave. Detroit, Mich.

**PAINTS.** *Concealment Coatings.* Folder, 4 pp., 8½x11, discusses the art of camouflage and contains sample color chips of the nine Devco & Raynolds concealment coatings which match Army colors and meet or exceed official specifications. Also discussed: fire-retarding paint, shatterproof coating and luminous paint for accident prevention during blackouts. Devco & Raynolds Co., Inc., 44th St. & First Ave., New York, N. Y.

**SCRAP FOR VICTORY.** *Salvage.* Brochure, 22 pp., 8½x11. A "how-to" blueprint for the guidance of business enterprises and civic leaders in the collecting and disposing of war-use salvage. Explains how the Lukens Steel Co. planned, launched and led a Coatesville salvage-collection drive that yielded a record-setting number of pounds of iron, steel, paper, rags and miscellaneous scrap. Brochure is generously illustrated and carries a chart of the campaign organization. Lukens Steel Co., Coatesville, Pa.

**WOODWORK.** *The New Open House.* Booklet, 32 pp., 8½x11. Revised, up-to-date edition of the original, popular *Open House*. Suggestions for civilian home and farm home modernization and repairs, as well as practical ideas for making war housing more livable. Numerous illustrations. Ponderosa Pine Woodwork, 111 West Washington St., Chicago, Ill.

**WROUGHT IRON.** *Wrought Iron for Sewage Treatment and Disposal Installations.* Technical bulletin, 28 pp., 8½x11. Pleasingly presented, this bulletin includes: discussion of various corrosive conditions encountered in designing sewage disposal plant water lines, outfall line service, drainage lines, and heating system coils and returns; description of properties of wrought iron and how wrought iron lends itself to corrosion control; pictures and descriptions of actual sewage disposal plants in various cities. A. M. Byers Co., Clark Bldg., Pittsburgh, Pa.

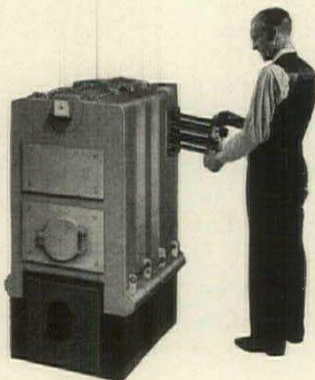
## Let's Take "Today's Moonshine" Out of Tomorrow's Home Heating

FOR the todays and tomorrows it's a case of getting right down to brass tacks on heating costs. Not just what it costs in fuel. Or what the first cost of the equipment is. But all the costs, and all the time that is involved. Let's cut out all the "moonshine". All the claims and conversation, and get right down to cases.

Isn't it so that you can't really call a home heating system complete, that does not include the hot water supply? Isn't it so then, that systems that require a separate heater for the hot water supply, and another separate one for the main heating, that you add costs when you should be subtracting them? Isn't it so, that running two fires to do two heating jobs when one fire could do it, is definitely wasting fuel and money?

When you figure on the cost of a Burnham Yello-Jacket Boiler, your entire heat producing equipment is in the one cost, because the one boiler with its one fire does both jobs of heating.

Burnham double heating boilers save at the start and keep on saving to the end.



The Taco heater in a Burnham is built inside at the top, where the water is always hottest.

# Burnham Boiler Corporation

Irvington, N. Y.  
Dept. J

Zanesville, Ohio  
Dept. J

Representatives In All Principal Cities  
of the United States and Canada



## FOR BETTER AND FASTER GLAZING



### ☆ SUPER-SPEED PERMA GLAZE

*The new speedier  
glazing compound*

Today's demand for SPEED and quality in glazing is met with NEW Super-Speed Perma Glaze compound. It's Laboratory Controlled from start to finish. You're assured uniform consistency in every pound, quick application, fast setting, and, when properly applied, indefinite perma-

nence. If you haven't tried this NEW glazing compound or received full information, write today. A FREE sample and convenient, easy-to-use Putty Selector guide will be sent at once. No obligation.

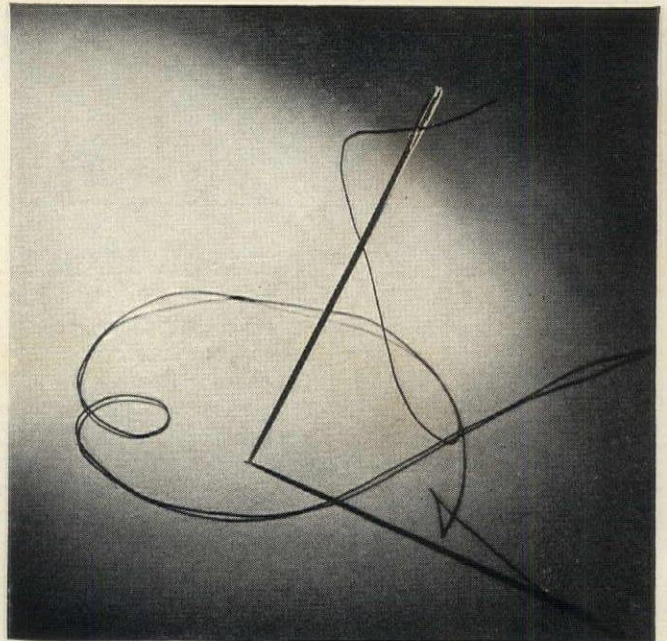
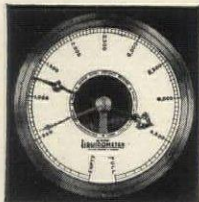
THE **BIDDLE** CO.  
AMERICA'S LARGEST EXCLUSIVE  
*Putty Makers*  
612 S. MAIN ST., ST. LOUIS, MO.

*5 Reasons Why We Measure  
Our Valuable Stored  
Liquids  
With*  
**LIQUIDOMETER Tank Gauges**  
*"THEY'RE ALWAYS DEPENDABLE"*

- 1 100% automatic.
- 2 No pumps, valves, or auxiliary units needed to read them.
- 3 Models available so that readings can be taken remotely from or directly at the tank.
- 4 Accuracy unaffected by specific gravity of tank liquid.
- 5 Approved for gauging hazardous liquids by Underwriters' Laboratories and other similar groups.

*Write for complete details*

THE **LIQUIDOMETER** CORP.  
36-30 SKILLMAN AVE., LONG ISLAND CITY, N.Y.



## THE EYE OF A NEEDLE

In a needle's eye we see a moral for industry. Just as the delicate job of threading a needle goes easier and faster when there is plenty of light, so the delicate jobs of industry are done better and quicker with adequate lighting, properly placed. You can count on Silv-A-King equipment to give you plenty of light, and on Silv-A-King's 21 years of experience for proper layout and installation. Silv-A-King lighting engineers will be glad to advise you on either fluorescent or incandescent installations.

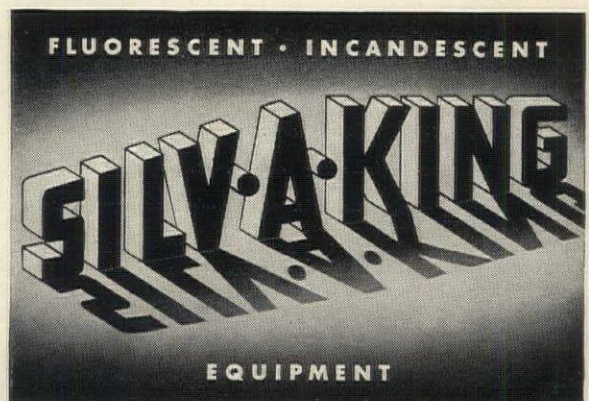
Bright Light Reflector Company, Inc.,  
1037 Metropolitan Avenue, Brooklyn, N. Y.

*Quality and dependability through two decades have linked the Silv-A-King name with such famous names-in-industry as:*

AC SPARK PLUG • BETHLEHEM STEEL • BUICK • CHEVROLET  
GENERAL MOTORS • FISHER BODY • INTERNATIONAL HARVESTER  
JONES & LAUGHLIN STEEL • PITTSBURGH PLATE GLASS  
RUPPERT BREWERY • WARD BAKING  
*and many others*

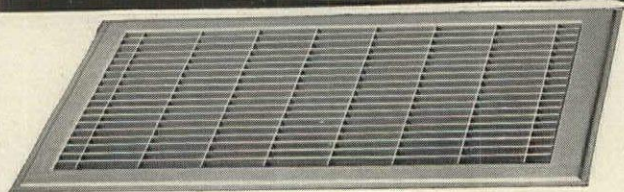


*Write for new, 16-page Silv-A-King book:  
"Light Is An Essential Production Tool"*



MAKES *Light* WORK FOR YOU





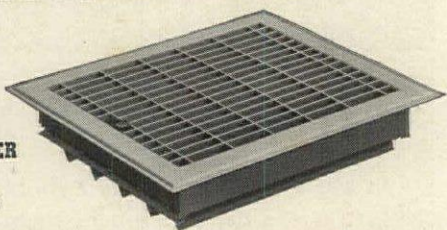
## DURABILT Registers and Intakes

**D**URABILT Floor Registers and Cold Air Faces have close mesh design in all models— $\frac{1}{2}$ " by 2" on centers. Surplus Strength results from amply heavy materials and rigid cross-bar assembly, the bars which form the face being mortised and locked at every cross joint, and also securely interlocked to frame. Frame is welded and reinforced at corners, joints are close fitted and will not pull apart. Entire assembly is extra durable, tight and true, and faces are level and heel-proof. Wherever stout, shock-proof construction is required—use DuraBilt!

Write for Auer Register Book, showing complete line of registers and intakes for warm air and air conditioning.

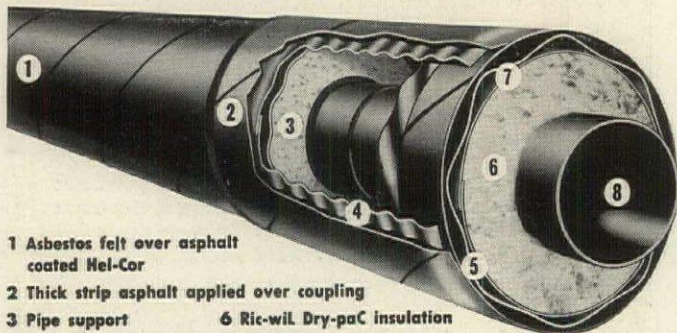
**THE AUER REGISTER COMPANY**

3608 Payne Avenue  
Cleveland, Ohio



**AUER REGISTERS**  
& GRILLES · For Air Conditioning and Gravity

## SPEED ON UNDERGROUND PIPING JOBS!



- |   |                              |
|---|------------------------------|
| 1 Asbestos felt over asphalt coated Mel-Cor |                              |
| 2 Thick strip asphalt applied over coupling |                              |
| 3 Pipe support                              | 6 Ric-wil Dry-paC insulation |
| 4 Coupler (in 2 halves)                     | 7 Asbestos felt jacket       |
| 5 Air space                                 | 8 Steam pipe                 |

On wartime construction of steam lines, use Ric-wil Pre-sealed Insulated Pipe Units:

- ★ Practically all materials available from stock—a single purchase covers everything.
- ★ Factory pre-fabrication eliminates all but a minimum of labor in the field.
- ★ One operation installs the whole system—pipe, insulation and conduit structure.
- ★ Engineering experience places a minimum service life on these units at 40 years.
- ★ Your job is water-tight and gives high operating efficiency.
- ★ Over a million feet now installed, mainly for National Defense purposes.

Write for latest Catalog "S". For Engineers engaged on war projects only: Engineering Manual 420A sent on request.

**Ric-wil** INSULATED PIPE UNITS  
THE RIC-WIL CO., CLEVELAND, O.  
*Agents in Principal Cities*



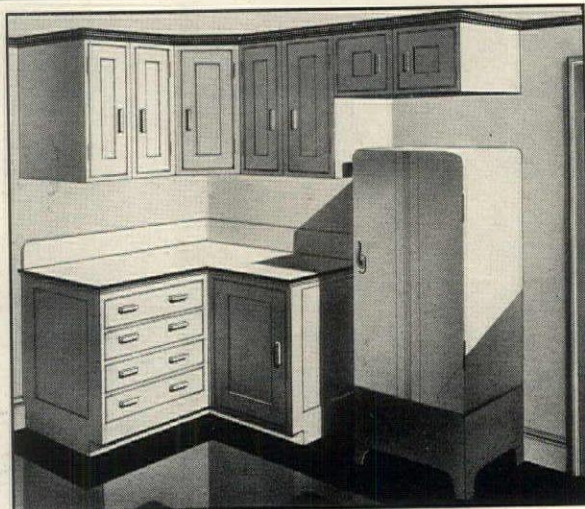
## For Today and Tomorrow MODERNFOLD DOORS

For the modernization of residences, institutions and commercial buildings today and for buildings still to be built . . . Modernfold Doors are the positive answer for opening problems. Because they are accordion-like in action, Modernfold Doors make usable the area usually required for the swing of doors and thus increases the amount of livable floor space. Modernfold makes any room irresistibly attractive. The fabric covering is provided with a firm foundation in the sturdy, precision-built frame. Write today for full details.

### New Castle Products

1613 I Street  
226 Murphy Building  
Modernfold Doors, 424 Madison Ave., New York City

New Castle, Indiana  
Detroit, Michigan



## GREGG Sectional Kitchen Cabinets

Smartly-styled, individual, work-saving kitchens may be created with Gregg Sectional Kitchen Cabinets, made of pine and plywood and toxic treated to give longer service. Completely assembled at factory ready to install (without counter, splash board, finishing ends and hardware.)

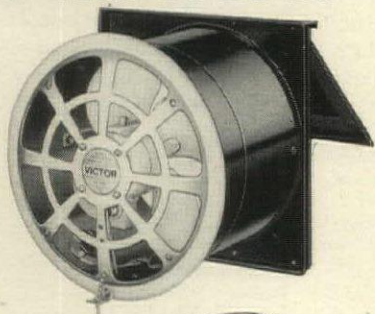
You may own a kitchen corner, as above shown, consisting of two wall cabinets 2-6, a splayed front wall cabinet, an overhead cabinet 2-6, a drawer base cabinet 2-8, a square corner base cabinet, for as little as **\$35.00**. Packaged individually. Total wgt. 259 lbs. FOB NASHUA. Sold only through recognized dealers. To avoid credit delay, send check less 2%.

## GREGG & SON

*Woodwork of Quality Since 1719*  
**NASHUA • NEW HAMPSHIRE**



*Called to the Colors*



After this job is over, we'll be seeing you again. In the meantime it's all out for VICTORY at VICTOR.

**VICTOR ELECTRIC PRODUCTS, INC.**  
2950 Robertson Ave., Cincinnati, Ohio

The American Home . . .



*Worth Fighting For!*

What are we fighting for?—The American Way—Freedom to live, speak and act, for Democracy—which includes home ownership.

Bilt-Well Woodwork Products, developed, improved and produced through 76 years of thrifty Peace and aggressive Wartime, are ideal for civilian or defense construction, to make for comfortable, pleasant housing for America's workers.



**Bilt-Well Woodwork Products**

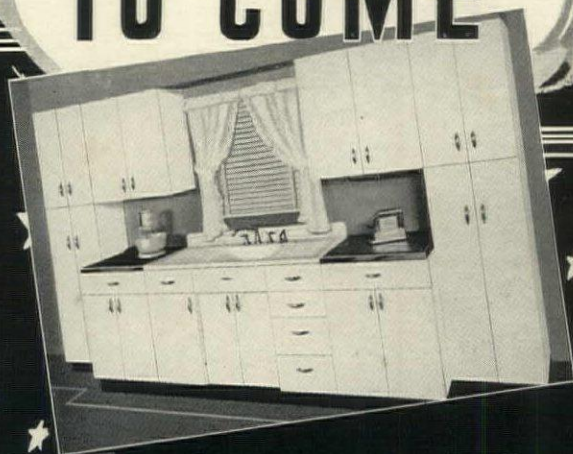
**BILT WELL  
WOOD WORK**

Manufactured for 76 Years by

**CARR, ADAMS & COLLIER COMPANY**

DUBUQUE, IOWA For free information write Dept. 9-AF

**FOR  
THE  
YEARS  
TO COME**



**THE**

EVOLUTION of kitchen design and material preference has been practically a "housewives' revolution"—a MASS DEMAND for easier working conditions which Youngstown Pressed Steel has met with MASS PRODUCTION of efficiently planned, easy - to - keep - clean, all steel YPS Kitchens.

For the years to come, Youngstown Pressed Steel expects to maintain its leadership in the quality, beauty and up-to-the-minute efficiency of its YPS Kitchens.

When the pent-up volume of civilian buying is released — what a business that will be!

Be ready to meet it with YPS kitchen equipment.

**YOUNGSTOWN PRESSED STEEL DIVISION**  
MULLINS MANUFACTURING CORPORATION  
WARREN, OHIO

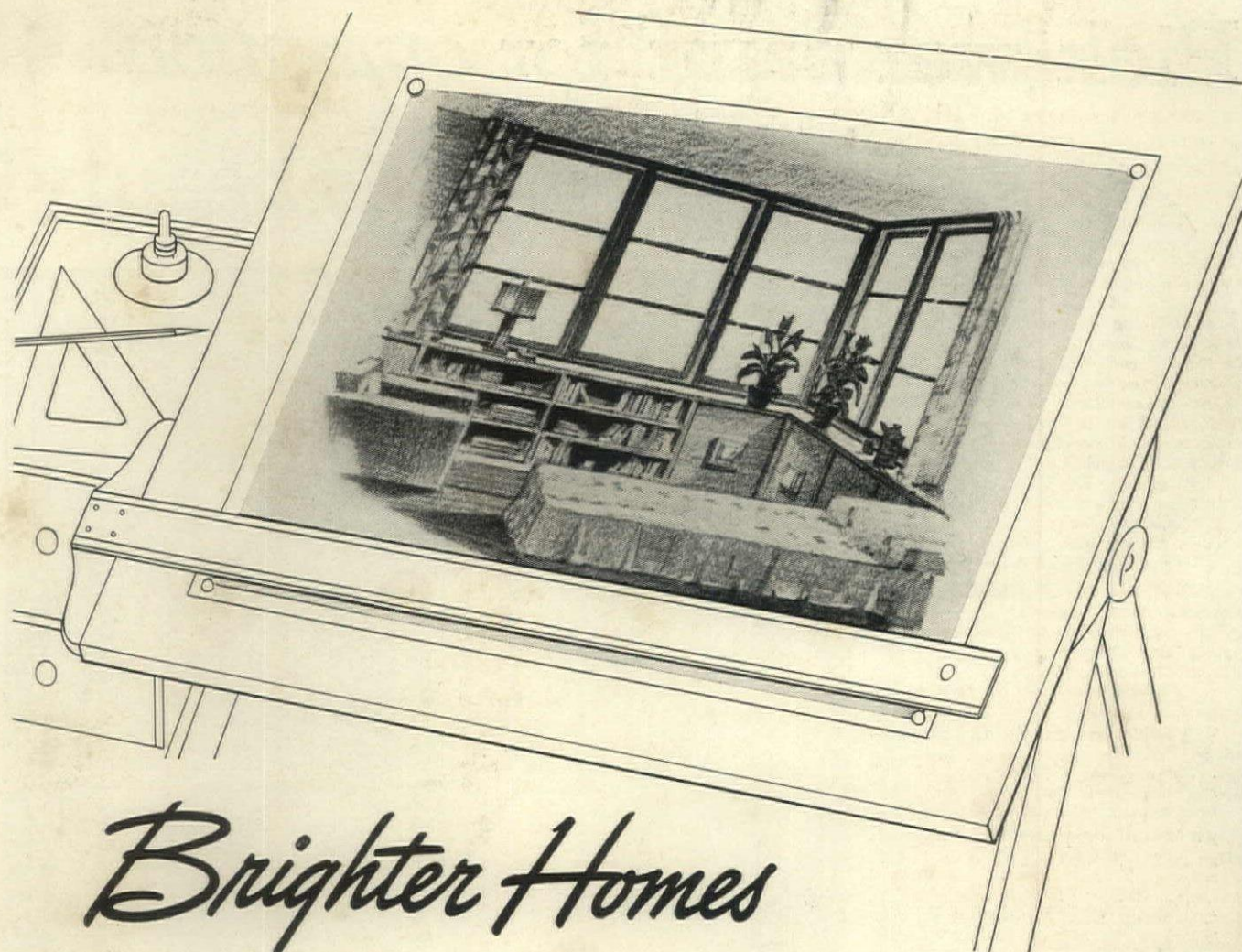


# SPECIFICATION AND BUYING INDEX

The advertising pages of THE ARCHITECTURAL FORUM have become the recognized market place for architects and all others engaged in building. Each month these pages offer the most complete guide to materials, equipment and services to be found in any magazine. A house or any other building could be built completely of products advertised in THE FORUM. While it is not possible for a magazine to certify building products, it is possible to open its pages only to those manufacturers whose reputation merits confidence. This THE FORUM does.

Aladdin Company, The	175	Laucks, I. F., Company	196
Allied Chemical & Dye Corporation	64	Lawson, F. H. Company, The	206
(The Barrett Division)		Lead Industries Association	220
Allied Housing Associates, Incorporated	177	Libbey-Owens-Ford Glass Company	219
Aluminum Company of America	17	Liquidometer Corp., The	215
American Brass Company, The	28, 29	Marsh Wall Products, Inc.	33
American Houses, Inc.	158, 159, 160, 161	McCarthy, Robert, Company	179
American Lumber & Treating Co.	191	Mengel Company, The	12, 13
Anaconda Wire & Cable Company	8	Mesker Bros.	23
Anchor Post Fence Company	186	Miami Cabinet Division	197
Andersen Corporation	46, 47	(The Philip Carey Company)	
Arco Company, The	188	Milwaukee Stamping Company	5
Armstrong Cork Company	187	(Bathe-Rite Division)	
Auer Register Company, The	216	Mueller Brass Co.	50, 51
Aviation Corporation, The	34, 35	Mueller Furnace Company, L. J.	Opp. 33
(Spencer Heater Division)		Mullins Manufacturing Corp.	217
Bank Building and Equipment Corporation	174	(Youngstown Pressed Steel Division)	
Barber-Colman Company	212	National Door Manufacturers' Association	Opp. 209
Barclay Manufacturing Company	54, 55	National Gypsum Company	Opp. 65
Barrett and Hilp	173	National Lead Company	37
Barrett Division, The	64	New Castle Products	216
(Allied Chemical & Dye Corporation)		Ohio Hydrate & Supply Co., The	Opp. 209
Bathe-Rite Division	5	Overhead Door Corporation	Cover IV
(Milwaukee Stamping Company)		Owens-Illinois Glass Company	19
Biddle Co., The	215	Paine Lumber Company, Ltd.	39
Blue Ridge Glass Corporation	38	Palace Travel Coach Corporation	170, 171
Borden Company, The	31	Pittsburgh Plate Glass Company	44
(Casein Division)		Pittsburgh Plate Glass Company, Paint Division	61
Brasco Manufacturing Company	9	Ponderosa Pine Woodwork	56
Bright Light Reflector Co., Inc.	215	Portland Cement Association	53
Bruce Co., E. L.	43	Pratt & Lambert, Inc.	42
Burnham Boiler Corporation	214	Reading Hardware Corporation	26
Bush, Clinton G., Lumber Corporation	165	Red Cedar Shingle Bureau	30
Cabot, Samuel, Inc.	Opp. 209, 213	Republic Steel Corporation	183
Carey, Philip Company, The	22	Revere Copper and Brass, Incorporated	58, 59
Carr, Adams & Collier Company, Inc.	217	Ric-Wil Co., The	216
Casein Company of America	31	Rilco Laminated Products, Inc.	3
(Division of The Borden Company)		Robertson, H. H. Company	62, 63
Ceco Steel Products Corporation	7	Rowe Manufacturing Co.	153
Celotex Corporation, The	Cover II, 166, 167	Ruberoid Co., The	60
City Lumber Company, The	180	Sedgwick Machine Works	204
Columbus Coated Fabrics Corporation	192	Sisalkraft Company, The	210
Congoleum-Nairn, Inc.	Opp. 32	Sloan Valve Company	48
Curtis Companies	185	Southern Mill and Manufacturing Co.	162
Detroit Steel Products Co.	15	Spencer Heater	34, 35
Douglas Fir Plywood Association	181, 192	(Division—The Aviation Corporation)	
Eagle-Picher Lead Company, The	184	Standard Houses, Inc.	161
Eljer Co.	198	Structiform Engineering Co.	172
Fitzgibbons Boiler Company, Inc.	201	Swartwout Co., The	211
Fleur-O-Lier Manufacturers	195	Timber Engineering Company	200
Flintkote Company, The	52	Truscon Steel Company	Cover III
Ford, Ivon R., Lumber Co.	161	United States Steel Corporation	36, 45
Formica Insulation Co., The	Opp. 16, Opp. 17	Universal Atlas Cement Co.	45
General Electric Company	32, 40, 41	(United States Steel Corporation Subsidiary)	
Green Lumber Company, The	157	Upson Company, The	25
General Fabricators, Inc.	164	Van Range, John, Co., The	194
Gregg & Son	216	Victor Electric Products, Inc.	217
Gunnison Housing Corp.	156	Wakefield, F. W. Brass Co., The	190
Hoffman Specialty Co., Inc.	18	Wasco Flashing Company	190
Homasote Company	155	Waterfilm Boilers, Inc.	213
Home Building Corporation	176	Webster, Warren & Co.	186
Houston Ready-Cut House Co.	154	Weis, Henry, Mfg. Co., Inc.	208
Hussmann-Ligonier Co.	168	West Dodd Lightning Conductor Corp.	194
Illinois Lumber Manufacturing Company	169	Westinghouse Electric & Manufacturing Co.	27, 205
Indiana Demountable Housing, Inc.	163	Weyerhaeuser Sales Company	199
(Subsidiary: The Wilkinson Company, Inc.)		Wheeler Osgood Sales Corporation, The	211
Insulite Company, The	207	Wilkinson Company, Inc., The	163
International Nickel Company, The	49	(Indiana Demountable Housing Division)	
Johns-Manville	Opp. 208	Wood Conversion Company	203
Johnson, S. C. & Son, Inc.	202	Youngstown Pressed Steel Division	217
Kennedy, David E., Inc.	Opp. 64	(Mullins Manufacturing Corp.)	
Kimberly-Clark Corporation	57	Zouri Store Fronts	11
King, T. C. Co.	180	Zurn, J. A. Mfg. Co.	20, 21
Kinnear Mfg. Co., The	189		
Kroening Engineering Corporation	178		





# Brighter Homes

are on Tomorrow's Planning Boards

One thing sure about tomorrow's homes, they're going to be made brighter and more livable through use of larger window areas, and through installation of many new glass features.

Picture and corner windows, which were becoming an important part of architectural design in pre-war days, promise to be even more prominent in tomorrow's homes. The opportunities these windows offer for added spaciousness, sunlight and cross ventilation open the way to new possibilities for better living.

More generous use of built-in mirrors in every room of the home also will open the way to greater livability.

Recent surveys made by Libbey-Owens-Ford reveal that practically every homeowner desires more mirrors.

New applications of decorative glass in outside walls and interior partitions promise to provide another practical way of increasing natural light in rooms and hallways . . . will add substantially to decoration possibilities.

The opportunities of designing and building *better* with glass are endless. May we send you our new booklet, "Practical Glass Ideas," which contains many interesting suggestions? Write Libbey-Owens-Ford Glass Company, 1326-A Nicholas Building, Toledo, Ohio.



**LIBBEY • OWENS • FORD**

QUALITY *Flat Glass* PRODUCTS



# Pick "war paint" for *gumption* —as well as beauty!



**W**HEN you specify the paint to be used on your building jobs these days, it's more important than ever to pick a paint that gives *lasting* protection, as well as beauty.

At the same time, you naturally want to keep costs down without sacrificing quality. *This is especially important when you're figuring on defense work.*

Pure white lead paint ideally satisfies all these requirements.

You see, white lead is made from one of nature's most durable metals — lead. Like lead itself, it resists time and wear, and it makes a paint which does not crack and scale.

And of course the beauty of white-lead-painted surfaces is a quality long prized by architects.

Fortunately, there is today no shortage of white lead. There is enough available for all civilian as well as military needs. And there is no



**You're money ahead when you paint with**  
*White Lead*

change in its uniformly high quality.

Cost? There too, white lead paint fills the bill. For it costs no more to buy than regular quality paint — despite its longer life and lasting beauty. It proves, once again, that "the best is cheapest."

**LEAD INDUSTRIES ASSOCIATION**  
420 Lexington Avenue, New York, N. Y.

**A BEAUTY THAT'S 143 YEARS YOUNG  
— THANKS TO WHITE LEAD PAINT**

◀ This stately homestead, Mattern Manor, was built in 1799 in Sangerfield, N. Y. Its beauty is undimmed today — periodically protected by pure white lead paint.

**INFORMATION FOR THOSE WHO SPECIFY PAINT** — Pure white lead is sold by paint stores in two different forms: (1) as a paste, commonly known as "lead in oil," for use by painters and decorators in mixing their pure white lead paint to order for each job; (2) as pure white lead paint in ready-to-use form, in popular-size containers. You are not confined just to white — white lead can be tinted to a wide range of colors.

White lead is also the backbone of other quality paints. In buying exterior paint it is a safe rule to follow: "the higher the lead content, the better the paint."

**GET THIS FREE GUIDE** to better painting. Send today for valuable booklet "WHAT TO EXPECT FROM WHITE LEAD PAINT" containing complete information about low-cost quality painting on all types of surfaces.





STEEL WINDOWS HAVE GONE TO WAR!

# TRUSCON *Dura-War* WOOD WINDOWS

are the answer to every industrial steel window problem!

Steel Windows have gone to war, so Truscon now is supplying DURA-WAR Wood Windows.

They are wood windows with a steel window background. Expertly made by a reliable manufacturer . . . fabricated to Truscon specifications . . . subjected to close inspection . . . DURA-WAR Wood Windows parallel the types and sizes in the standard line of Truscon horizontally-pivoted steel windows.

Truscon trained sales engineers and erectors are available to give you all necessary DURA-WAR Wood Window information, including cost, erected and glazed, or merely delivered to job site. Prompt shipments from many points!

**TRUSCON STEEL COMPANY • Youngstown, Ohio**  
Subsidiary of Republic Steel Corporation

**NOTE TO ARCHITECTS:** Truscon Residential Double Hung Steel Windows and Residence Steel Casements are available for use in homes built in defense areas. The War Production Board has approved their use until present inventories are liquidated.



Write today for this illustrated free catalog on the new Truscon DURA-WAR Wood Windows.



File in Stock

# DOORS

# for War Construction



Our facilities are devoted to the manufacture of quality doors for war-time building. The "OVERHEAD DOOR" with the exclusive Miracle Wedge has proved ideal for all types of government construction. We welcome an opportunity to show how The "OVERHEAD DOOR", with its fast, easy operation, saves space and valuable man-hours. Electric operators available for all doors.

**NATION-WIDE SALES-INSTALLATION-SERVICE**

*For*

Army, Navy, Marine  
and  
Coast Guard Buildings  
Ordnance Depots  
War Production Plants

The

**OVERHEAD DOOR**

TRADE MARK  
WITH THE

**MIRACLE WEDGE**

**OVERHEAD DOOR CORPORATION**  
HARTFORD CITY, INDIANA, U. S. A.

Copyright 1942, Overhead Door Corporation.